# ecoled

Luz Negra is a pioneer in the design of led strips, offering excellent quality since 2006. We were the first Spanish company to incorporate silicone as an IP protection system and later on to develop our **"DUO System" (unique on the market)** which guarantees total water-tightness yet maintaining the same flexibility and width of the PCB.

The exclusive water-tightness system, the double layer PCB, the power stabilizer, the high CRI, the thickness of the PCB, the tin silver in the welding, the quality of the phosphorous in the white leds, the brand name of the chip used, the quality of the adhesive tape, amongst other details, make our leds stand out from other makes, **because not all led strips are the same.**

**Not all led strips are alike.**

Some of the characteristics which make our ecoled strips unique;

1. Spanish idea and design.
2. Exclusive "Waterproof DUO" system which guarantees IP67 without widening the PCB and maintains the same flexibility.
3. Double layer PCB (with 3 and 4 ounces) for lower voltage drops and greater cooling of the strip.
4. Adhesive thermal conductive tape on the lower part which quickly transfers the heat to the profile.
5. Stabilizers with Heat Control system which prevent the strip from blowing through overload.
6. Strips with up to 5700 lumens per metre.
7. Full colour strips with CRI greater than 97.
8. COB strips with a steel sheet in the PCB which prevents any breaking due to bending.
9. Very high quality strips directly at 230V which offer a worldwide patent.
10. Special covering in the waterproof strips which prevents yellowing and inflexibility over time.
11. Led strips up to 170 lm/W.

* Please refer to the technical data sheet for each model.

CE RoHS COMPLIANT

Colour ºKELVIN

1000  2000  3000  4000  5000  6000  7000  8000  9000  10000 K

# ecoled by Luz Negra

# Custom made led strips

Our vast experience in the design of flexible led strips (since 2006) allows us to manufacture totally customised led strips (according to the order); where the customer can choose from a variety of features, such as the following:

**PCB width:** minimum 4mm.

**Type of led:** front or side lighting, SMD 3014-3528-5050-2835-3327, etc.

**Water-tightness:** from IP20 to IP67. Our waterproof DUO system can also be provided on request.

**PCB quality:** single or double sided, the thickness can vary, light reflecting properties, etc.

**Led Quality:** CREE, NICHIA, OSRAM, EPISTAR, etc.

**CRI** (Colour Rendering Index).

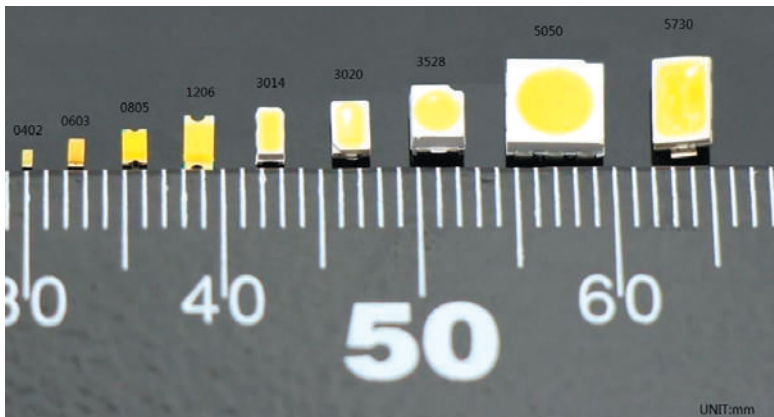**Led colour:** warm, cool or neutral white, red, green, blue, amber, RGB, RGB+W, CW+WW.

**Voltage:** 12V-24V.

**Led power:** from 2.5W up to 40W per metre.

**Lighting performance:** from 80 up to 100 lumen/W or even greater values.

**Length of the roll:** 5, 10 or 15 metre. The length of the led strip can be shortened on request.
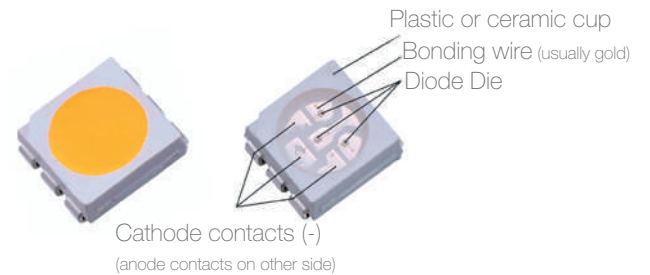
Other elements include **voltage stabiliser, PCB with the company's logo or printed brand, thermal conductive tape**, etc.

## Manufacturing process for our flexible led strips

### Surface Mounted Device led



Plastic or ceramic cup
Bonding wire (usually gold)
Diode Die

Cathode contacts (-)
(anode contacts on other side)

Although the majority of led strips look alike, what makes the difference is the way in which they are manufactured and their components and this is directly reflected in their luminosity, performance, stability, light loss and life span.
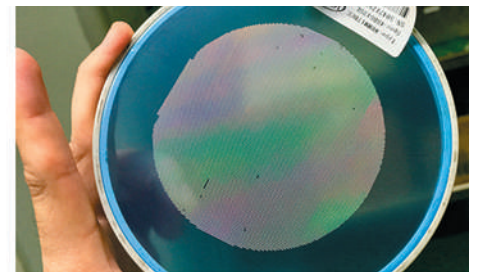
As follows, we highlight the basic steps which are taken in the manufacturing of our led strips:
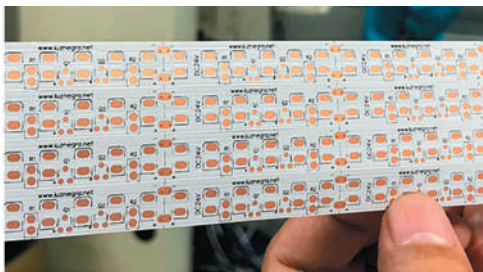

PCB
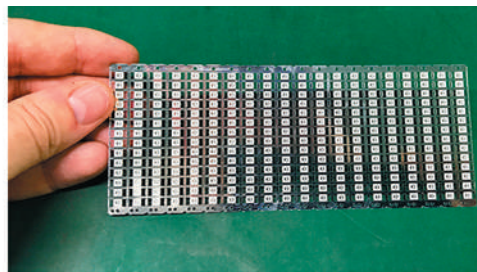

Diodes where the chips are mounted


Base plate with more than 15.000 chips (diodes)

In order to manufacture a led strip we need a base (PCB), on top of which we can find a circuit which generates electrical current and feeds the components which we place on top, such as the SMD leds, power resistors and the current stabilisers. This base is made up of one or two layers which are between one or two ounces (oz) in thickness. A PCB with two layers and increased ounces allows us to achieve a reduced voltage drop and all our strips have two layers.

We also need to mention the die where the chip is placed (the diode which emits the light). This die will be soldered onto the PCB. There are many different types of diode die and can be determined by the quantity of chips to be housed inside and their shape. The most common are 3528-2838-5050-3014-3030-3535-2216-3527.
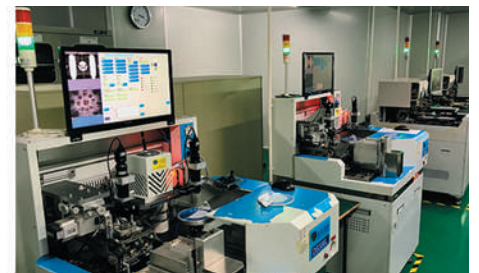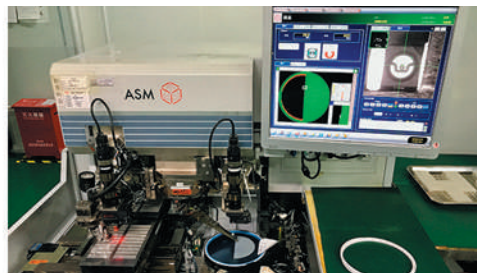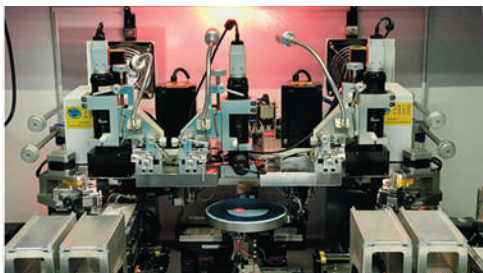






The machines used have one or two heads, which take the chips from the base plate and then stick them onto the die with a special glue.

# ecoled by Luz Negra

Next the chips wires are soldered onto the die (at Luz Negra we use a high purity gold wire which gives us improved conductivity).

In order to obtain white leds we need to apply a phosphorus layer on top of the blue led. Depending on the composition of this phosphorus we will achieve different tones of white.
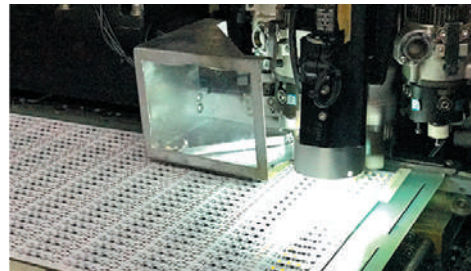
Phosphorus is the yellow layer which we can see in the white leds when they are turned off. If the colour is "lemon" yellow then it will mean cold white (approx 6000°K). If it is "orange-coloured" then it will mean warm white (approx 3000°K).

Machine soldering with gold wires
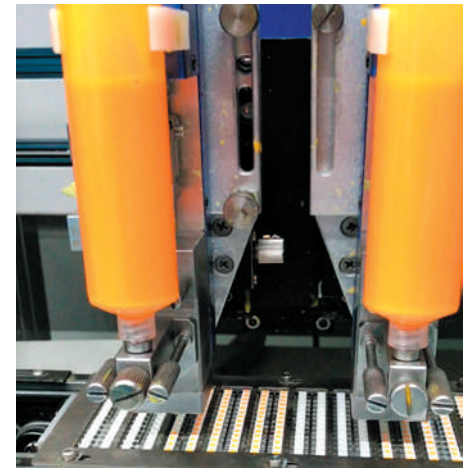
Machine placing phosphorus in the leds
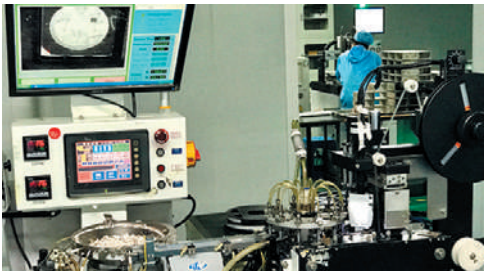
Test 1x1 placing on reel

Machine "revolver" applying leds to the PCB

Drying oven for sealing soldered parts

Afterwards another machine carries out a test on the leds (one-by-one) in order to classify them via their BIN code and it packages them onto a reel to be later used in the SMT machines. Then the machine applies the leds and other components such as power resistors and current stabilisers to the PCB. Once we have the PCB completed with all the elements, it is placed into an oven to make sure that all the soldered parts between the components and the PCB are completely fixed.

Quality control and luminosity
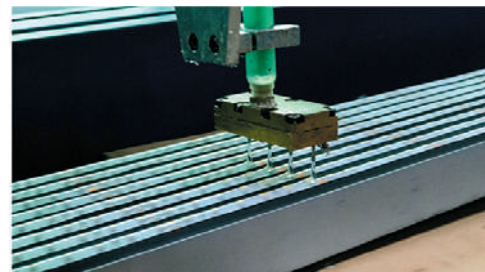
Placing of silicone
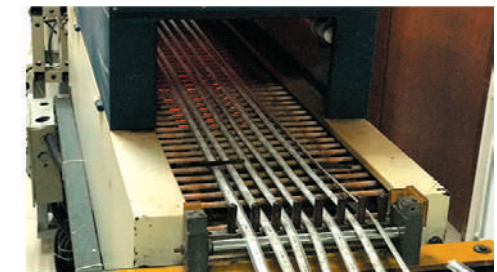
DUO waterproofing shrink tunnels

Next we come to the quality process, where the strips are checked (in lengths of 50cm) with different power intensities and with white filters, in order to detect any anomalies. Then the 50cm lengths are soldered together to make final lengths of 5m (supplied in rolls). The waterproof models are placed onto special 5m racks and here they are treated with a layer of silicone to achieve IP65. As for the models with our Waterproof DUO system (silicone and shrink wrap tube which offer us IP67), they will have a shrink wrap casing applied and then finished in the shrink tunnels. This system gives us IP67 protection without increasing the width of the led strip and at the same time maintains its flexibility in 100%.

Afterwards 3M tape is placed on the back of the strips and they are placed in the AGE TESTING chamber where the final quality testing is carried out. At the end of this process machines roll the strips onto 5m reels and then they are packaged.

## Flexible led strips with HEAT CONTROL by Luz Negra

Leds are very sensitive to temperature and if we overload, or don't apply suitable dissipation or if the outside environment is warmer than desired, then the led acquires a temperature higher than appropriate. This means it will enter into a loop where it heats up more and more until it ends up burning out and reducing its luminosity to zero.

To avoid these situations, here at Luz Negra we have incorporated our HEAT CONTROL system in some of our flexible strips (PRO series). The heat control works as follows: if the strip is working at its normal temperature (normally below 45°C), the luminous flux and its performance is 100%, but, if for any reason the strip gets hotter, the intelligent Heat Control system reduces the luminous flux to preserve the led. If the temperature is too high, the led will turn off to avoid burning out.

The flexible strips which incorporate the Heat Control system are the following:

· Vizcaya
· Elite 5
· Elite 10
· Elite 15
· Elite 20

· Palma
· Tenerife
· Hierro
· Lanzarote
· Gomera



Working temperature —— <45°C
Brightness —— 100%

Working temperature —— >70°C
Brightness —— 80%

Working temperature —— >75°C
Brightness —— Turn off
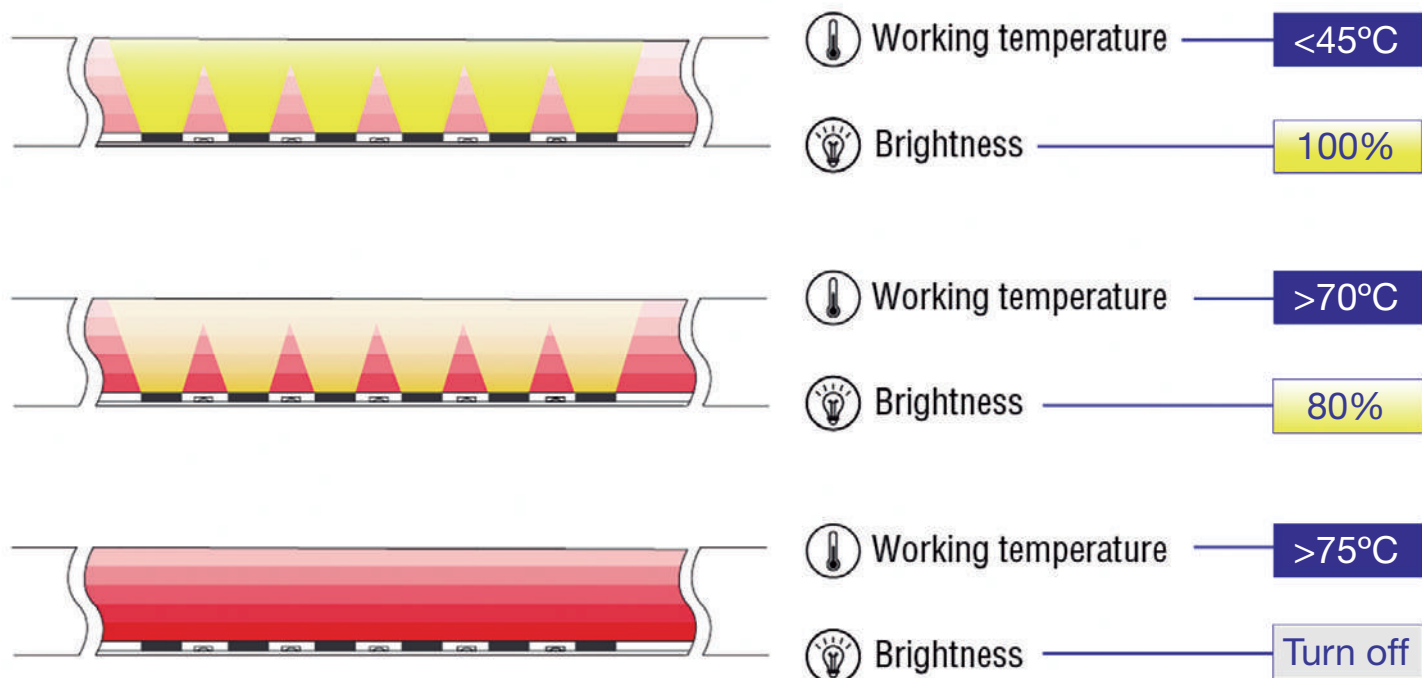
# TM30-18 or CRI ¿Which is more important?

The Colour Rending Index (CRI) is a numerical value from 0 - 100, which idicates the quality of light with respect to the sun. A light source with a CRI of 100, supposedly offers a chromatic reproduction similar to that of the sun which means that any product exposed to that light will be seen with its natural colours, as if it were iluminated by sunlight.

In the photo we can observe that the hamburger with a high CRI reflects the real colours more accurately, the value of R9 (red) being the most important of all.
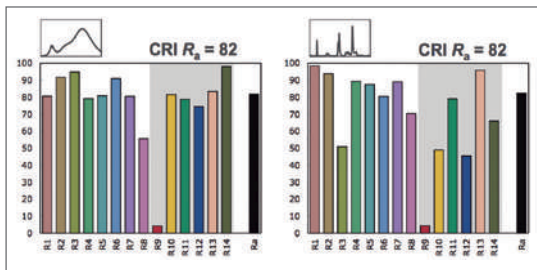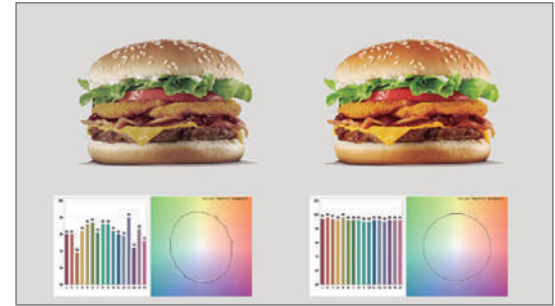


The CRI with its 15 values (colours) isn't complete enough to be able to carry out the best quality testing. This is due to the fact that with only 15 values we could reach a false assumption. The CRI can't prevent us from designing a light source with the specific idea of having a high result with these 15 colours, while the existing colour spectrum is poor in general (see the photo where we have 2 values with identical CRI and yet both luminous spectrums are very different).

Therefore the TM-30-18 is a new standard which can tackle this problem. It has been proposed by leading organizations in USA, the IES (Illuminating Engineering Society) and the DOE (Department of Energy in USA). The TM-30-18 offers the Colour Fidelity Index (Rf) with the same quality scale up to 100, but with much higher levels of precision due to its increase in test colours (from 15 to 99 colours).

As the test colours have been substantially increased, it's practically impossible to have false readings. Only those light sources which have similarities with daylight or with the standard illuminant in the full spectrum, will obtain values greater than 90 or 95.

Our ecoled Full Colour strips, Sevilla model (see page 66), offer a luminous spectrum which is almost identical to sunlight, therefore achieving an excellent chromatic reproduction. Our laboratory (in our Barcelona installations) offers the most technologically advanced systems and with our spectroradiometer, equipped with an integrated sphere, we can carry out corresponding measurements for TM30-18 in order to guarantee the most rigorous and exact readings for our clients.
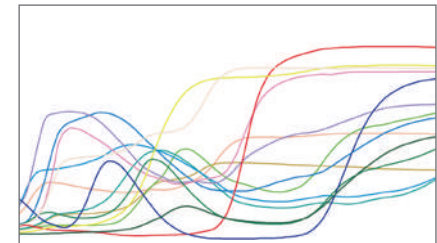
Spectrum, considering 15 values
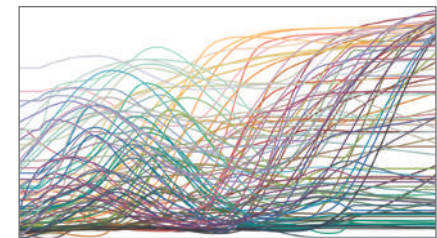
Spectrum, considering 99 values
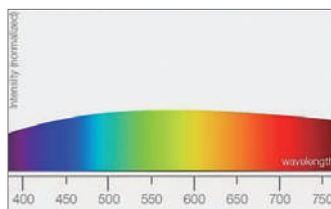
Luminous spectrum with sunlight

Luminous spectrum with sunlight

Luminous spectrum with Sevilla ecoled

# SPECIAL SERIES


PCB SLIM


SIDE LIGHTING


ZIG-ZAG


FLEXIBLE PANEL
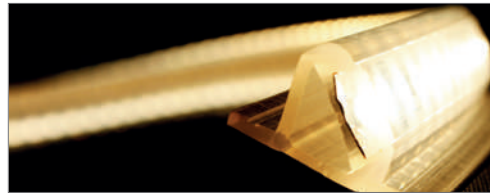

GHOST PROFILE


COB

**Please note: all our flexible led strips are supplied in their original lengths (5m/10m/100m) or can be customised according to requested needs (with a small additional fee).**

## 5V

| Page | ecoled | Series | Colour (ºKelvin) | Power | Lumens (Lm/m) | IP | Leds/m | PCB width | Cuttable | Connector |
|------|--------|--------|------------------|-------|---------------|-----|--------|-----------|----------|-----------|
| 291 | FIJI | DIGITAL | RGB | 11.5W/m | 308 Lm | IP20 | 60 | 5mm | 16.54mm | - |

## 12V

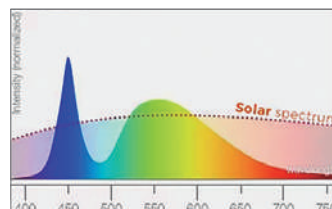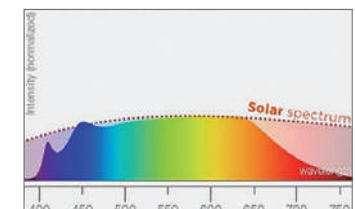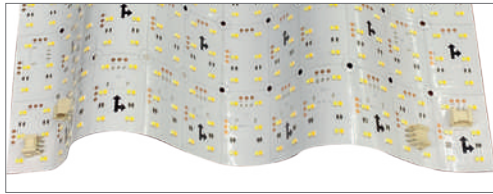| Page | ecoled | Series | Colour (ºKelvin) | Power | Lumens (Lm/m) | IP | Leds/m | PCB width | Cuttable | Connector |
|------|--------|--------|------------------|-------|---------------|-----|--------|-----------|----------|-----------|
| 273 | JADE | BASIC | 6500 3500 | 4.8W/m | 500 Lm / 6500ºK | IP20 | 60 | 8mm | 50mm | 42.069 |
| 273 | RUBI | BASIC | 6000 2800 | 4.8W/m | 400 Lm / 6000ºK | IP65 | 60 | 10mm | 50mm | 42.068 |
| 273 | IBIZA | PRO | 6300 4000 2800 | 4.8W/m | 480 Lm / 6300ºK | IP67 DUO | 60 | 10mm | 50mm | 42.004 |
| 275 | TOPACIO | BASIC | 6000 2800 | 11.5W/m | 864 Lm / 6000ºK | IP20 | 144 | 10mm | 20mm | 42.068 |
| 277 | BARCELONA | PRO | 6500 4000 3000 | 19.2W/m | 1600 Lm / 6500ºK | IP20 | 240 | 10mm | 12.5mm | 42.068 |
| 279 | CIES | PRO SLIM | 6000 4000 3000 | 10W/m | 1200 Lm / 6000ºK | IP20 | 198 | 5mm | 15 mm | 42.069 |
| 281 | MENORCA | PRO SIDE LIGHTING | 5000 4000 2800 | 7.7W/m | 600 Lm / 5500ºK | IP67 DUO | 96 | 10mm | 31mm | - |
| 281 | GETAFE | PRO SIDE LIGHTING | 6000 4000 2800 | 10W/m | 953 Lm / 6500ºK | IP20 | 120 | 6mm | 25mm | 42.069 |
| 283 | AVILA | PRO "ZIG-ZAG" | 6000 4400 3000 | 12W/m | 1100 Lm / 6000ºK | IP54 | 60 | 6mm | 50mm | 42.069 |
| 285 | ESMERALDA RGB | BASIC "RGB" | RGB | 7.2W/m | 250 Lm / white | IP65 | 30 | 10mm | 100mm | - |
| 285 | AGATA RGB | BASIC "RGB" | RGB | 14.4W/m | 350 Lm / white | IP65 | 60 | 10mm | 50mm | - |
| 281 | IRUN RGB | PRO SIDE LIGHTING | RGB | 13W/m | 400 Lm / white | IP20 | 180 | 6mm | 50 mm | - |
| 283 | JEREZ RGB | PRO "ZIG-ZAG" | RGB | 11.5W/m | 400 Lm / white | IP20 | 48 | 8.5mm | 60mm | - |
| 279 | ALICANTE RGB | PRO SLIM | RGB | 14.4W/m | 400 Lm / white | IP20 | 60 | 6mm | 50 mm | - |
| 268 | PINK 10 | PINK "neon effect" | PINK | 10W/m | 200 Lm | IP20 | 120 | 5mm | 25mm | 42.069 |
| 292 | COZUMEL RGB | DIGITAL | RGB | 7.2W/m | 112 Lm | IP20 | 30 | 10mm | 33.2mm | - |
| 291 | HAWAI RGB | DIGITAL | RGB | 14.4W/m | 438 Lm | IP20 | 60 | 10mm | 16.8mm | - |
| 292 | BALI | DIGITAL | 3000 | 14.4W/m | 1000 Lm / 7000ºK | IP20 | 60 | 10mm | 50mm | - |
| 292 | MALDIVAS RGB+W | DIGITAL | RGB + W | 20W/m | 500 Lm | IP20 | 60 | 10mm | 16.8mm | - |

**Please note: all our flexible led strips are supplied in their original lengths (5m/10m/100m) or can be customised according to requested needs (with a small additional fee).**

## 24V

| Page | ecoled | Series | Colour (ºKelvin) | Power | Lumens (Lm/m) | IP | Leds/m | PCB width | Cuttable | Connector |
|------|--------|--------|------------------|-------|---------------|----|--------|-----------|----------|-----------|
| 267 | ELITE 5 | ELITE SAMSUNG | 6500 4000 3000 | 5W/m | 700 Lm / 6500ºK | IP20 | 140 | 10mm | 50mm | 42.068 |
| 270 | PALMA | PREMIUM RETAIL | 4200 3200 2850 | 4.8W/m | 480 Lm / 4200ºK | IP20 | 56 | 10mm | 125mm | 42.068 |
| 270 | TENERIFE | PREMIUM RETAIL | 4200 3200 2850 | 9.6W/m | 960 Lm / 4200ºK | IP20 | 112 | 10mm | 62.5mm | 42.068 |
| 267 | ELITE 10 | ELITE SAMSUNG | 6500 4000 3000 | 10W/m | 1250 Lm / 6500ºK | IP20 | 140 | 10mm | 50mm | 42.068 |
| 275 | VIZCAYA | PRO | 6500 4000 3000 2800 | 10W/m | 1100 Lm / 6500ºK | IP67 DUO | 144 | 10mm | 42mm | 42.004 |
| 275 | ZAFIRO | BASIC | 7800 4000 2800 | 15W/m | 1300 Lm / 7800ºK | IP65 | 60 | 10mm | 100mm | 42.004 |
| 263 | COB | COB | 6500 4000 3000 2500 | 15W/m | 1530 Lm / 6500ºK | IP20 | 480 | 10mm | 50mm | 42.068 |
| 267 | ELITE 15 | ELITE SAMSUNG | 6500 4000 3000 2700 2400 2100 | 15W/m | 1920 Lm / 6500ºK | IP20 | 140 | 10mm | 50mm | 42.068 |
| 271 | HIERRO | PREMIUM RETAIL | 4200 3200 2850 | 16W/m | 1850 Lm / 4200ºK | IP20 | 126 | 10mm | 55.55mm | 42.068 |
| 271 | LANZAROTE | PREMIUM RETAIL | 4200 3200 2850 | 18W/m | 2100 Lm / 4200ºK | IP20 | 196 | 10mm | 35.7mm | 42.068 |
| 277 | CANOVELLES | PRO | 6000 4000 2800 | 19.2W/m | 1600 Lm / 6500ºK | IP67 DUO | 240 | 10mm | 25mm | 42.004 |
| 260 | SEVILLA | PRO | 4000 2700 | 20W/m | 2258 Lm / 4000ºK | IP20 | 160 | 10mm | 50mm | 42.068 |
| 267 | ELITE 20 | ELITE SAMSUNG | 6500 4000 3000 | 20W/m | 2060 Lm / 6500ºK | IP20 | 140 | 10mm | 50mm | 42.068 |
| 271 | GOMERA | PREMIUM RETAIL | 4200 3200 2850 | 21W/m | 2450 Lm / 4200ºK | IP20 | 238 | 10mm | 29.4mm | 42.068 |
| 279 | GRANADA | PRO OSRAM | 6500 4000 2700 | 21W/m | 3150 Lm / 6500ºK | IP20 | 128 | 5mm | 62.5mm | 42.069 |
| 265 | CORDOBA | PRO | 4000 2700 | 40W/m | 5732 Lm / 4000ºK | IP20 | 192 | 10mm | 41mm | - |
| 285 | GERONA RGB | PRO "RGB" | RGB | 28.8W/m | 800 Lm / white | IP20 | 120 | 10mm | 50mm | - |
| 287 | MARBELLA RGBW | PRO "RGBW" | RGB + W 3000 | 18.4W/m | 800 Lm / white | IP20 | 60 | 10mm | 100mm | - |
| 287 | NERJA | PRO "DUAL" WW-CW | 6000 3000 | 19.2W/m | 1500 Lm / 6000ºK-3000º | IP20 | 120 | 8mm | 50mm | - |
| 289 | TREVELEZ | FOOD "meat" | 2100 | 20W/m | 1600 Lm / 2100ºK | IP54 | 192 | 10mm | 41.6mm | 42.068 |
| 289 | MOTRIL | FOOD "pastries" | 2500 | 20W/m | 1800 Lm / 2500ºK | IP54 | 192 | 10mm | 41.6mm | 42.068 |
| 289 | ANTEQUERA | FOOD "vegetables" | 6000 | 20W/m | 2200 Lm / 6000ºK | IP54 | 192 | 10mm | 41.6mm | 42.068 |
| 268 | PINK 20 | PINK "neon effect" | PINK | 20W/m | 420 Lm | IP20 | 168 | 10mm | 42mm | 42.068 |
| 192 | SEYCHELLES | DIGITAL | RGB | 28.8W/m | 592 Lm | IP20 | 20 | 12mm | 50mm | - |

## 48V

| Page | ecoled | Series | Colour (ºKelvin) | Power | Lumens (Lm/m) | IP | Leds/m | PCB width | Cuttable | Connector |
|------|--------|--------|------------------|-------|---------------|----|--------|-----------|----------|-----------|
| 262 | CASTELLON | 48V | 6000 4000 2800 | 12.8W/m | 1327 Lm / 6000ºK | IP20 | 150 | 10mm | 100mm | 42.068 |

## 230V

| Page | ecoled | Series | Colour (ºKelvin) | Power | Lumens (Lm/m) | IP | Leds/m | PCB width | Cuttable | Connector |
|------|--------|--------|------------------|-------|---------------|----|--------|-----------|----------|-----------|
| 260 | INFINITY | 230V | 6500 4500 3000 2700 | 14W/m | 1600 Lm / 6500ºK | IP67 | 140 | 12 | 100mm | 42.004 |
| 254 | GHOST MILANO | 230V | 6000 4000 3000 | 14W/m | 1500 Lm / 6000ºK | IP67 | 140 | 26 | 100mm | 42.004 |
| 255 | GHOST MILANO DOBLE | 230V | 4000 3000 | 35W/m | 3750 Lm / 4000ºK | IP67 | 280 | 26 | 100mm | 42.004 |
| 256 | GHOST AMSTERDAM | 230V | 6000 4000 3000 | 14W/m | 1500 Lm / 6000ºK | IP67 | 140 | 14 | 100mm | 42.004 |
| 257 | GHOST SOPHIA | 230V | 6000 4000 3000 | 14W/m | 1500 Lm / 6000ºK | IP67 | 140 | 26 | 100mm | 42.004 |

# COMPARATIVE

## Conventional Profile kit

**Power supply**

**Cover**

**Aluminium profile**

**Clip**

**Led strip**

## New Ghost Profiles

**IP65 connector cable**

**Silicone led profile**

**Opal silicone cover**

**Led strip**

It works at 230V; no power supply required.

**Side fixing wings**
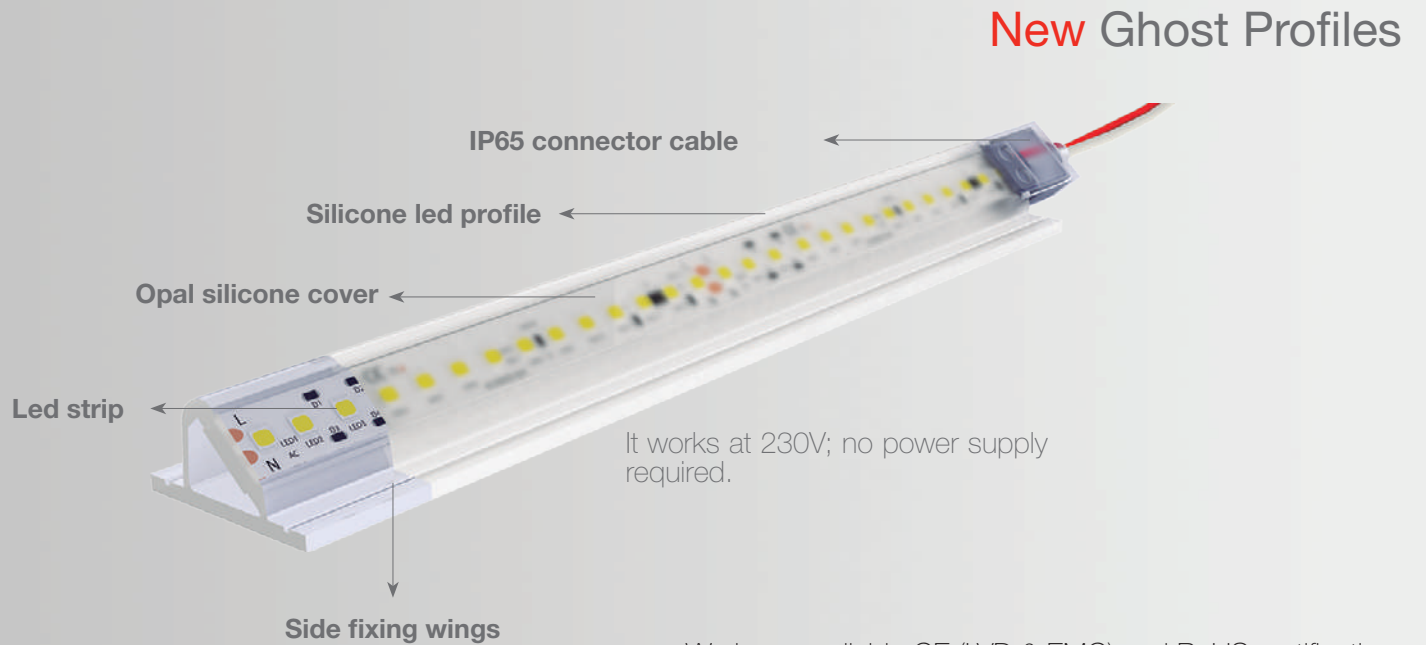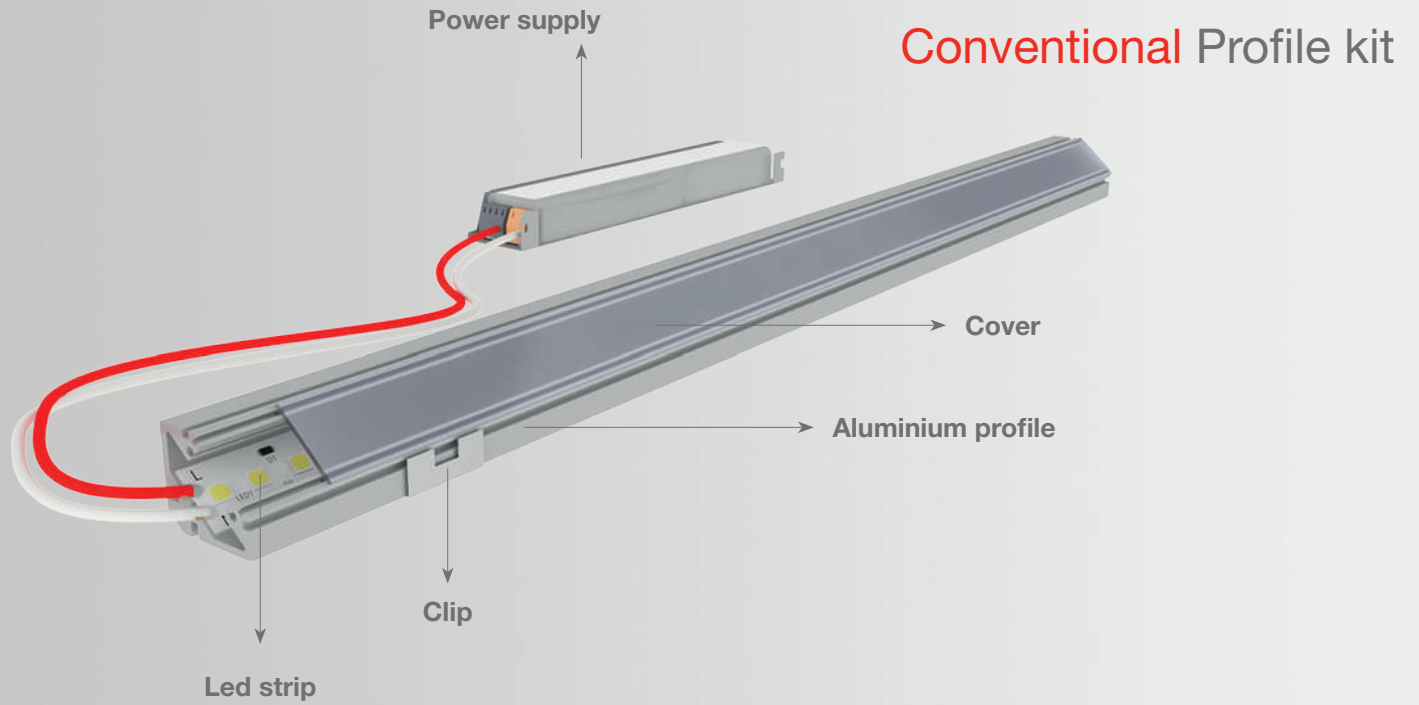
We have available CE (LVD & EMC) and RoHS certification

# Ghost Profile; our revolutionary product

Our Ghost profile is made of opal coloured silicone, which has been manufactured via a cold extrusion process and has a led strip inside which works directly at 230V. Its 140 leds/m and 0.6W of power, use only 0.1W (16% of its nominal). This means they work more relaxed at a lower power level. They do not require any aluminium profile for heat dissipation. This means we can do installation of up to 50 metre with electric feed from only one end and without any junction boxes or drop in tension. Thanks to its waterproofing of IP67 it is ideal for outdoor use. It has IP67 waterproof connectors which can be screwed in place and do not need any welding. Our Ghost Profile has a very low flicker and is dimmable by means of triac. Supplied in metre or in 100m rolls. We offer up to 3 years guarantee.
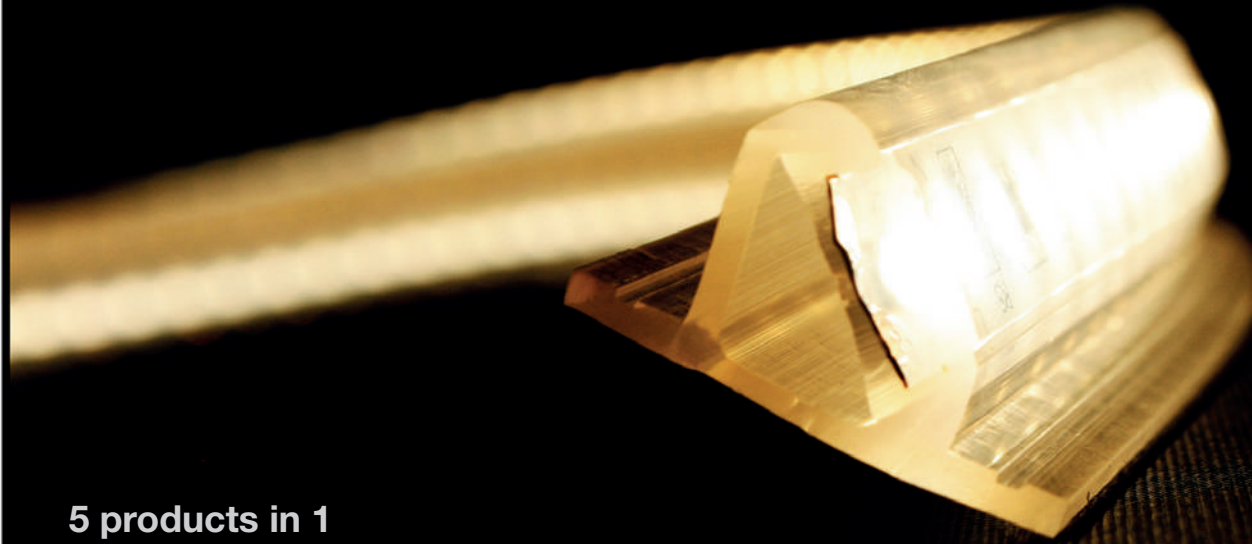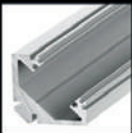
24h working

Installing in half the time.

Up to 50m without any power supply or junction boxes.

## 5 products in 1

**PROFILE:** Its silicone structure imitates the aluminium profiles. It does not require thermal dissipation from aluminium as it works only at 16% of its nominal. Its flexibility allows us to adapt to irregular shapes.

**COVER:** It is manufactured in opal coloured silicone which diffuses the led dots and which can't be seen once the light bounces back onto surfaces like walls and ceilings.

**LED STRIP:** Our Ghost profile is manufactured via a cold extrusion process and has a led strip inside. It has 140 leds/m SMD 2835 (14W/m) with 1500 lumens/m, offering almost 110 lumens/W.

**POWER SUPPLY:** Its electronic design (Spanish worldwide patent) permits us to work directly at 230V without needing any power supply or external rectifying box.

**FIXING CLIP:** Ghost profile has side wings with grooves for fixing the screws or nails onto the desired surface.

# MILANO GHOST PROFILE

High quality silicone opal profile, manufactured with a 230V led strip inside. It allows us to illuminate cavities and cornises etc. and offers up to 50 metre without luminosity drops. It has 2 side grooves which means we can screw or nail the profile onto the desired surface. Aluminium is not required for heat dissipation and it can work for 24h non stop. It can be cut every 10cm, consumption 14W/m, offering 1500 Lm/W. It can be regulated with triac dimmer.
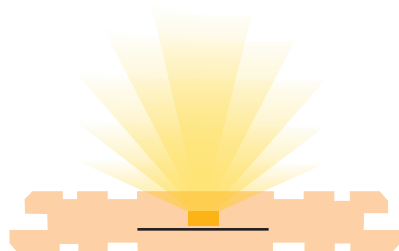
Thanks to its screwable connection kit, welding is not necessary. Its waterproofing of IP67 and UV protection turn it into an ideal product for outdoor use and also humid zones (it is extremely necessary to completely seal the connector and end cap with the recommended silicone).

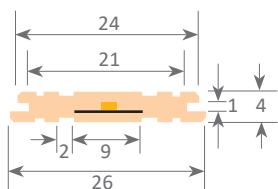Supplied in 100m rolls, or cut to requested length (MOQ 1m).

**We offer a 2 year guarantee which can be extended to 3 years if the requested connections are carried out by Luz Negra. Spanish design and patent.**

Scale 1:2

Scale 1:1

| Power (W) | 14W/m |
|---|---|
| Voltage (V) | 230V |
| Light emission | 120° |
| Waterproofing | IP67 |
| Nº leds/m | 140 |
| Cuttable | every 100mm |
| Working temperature | -20ºC / +40ºC |
| Apt for | indoor / outdoor |
| Packaging | by metre |
| Guarantee | 3 years |

**Ghost profile Milano**

| 34.005 | white | 6000ºK | 14W/m | 1500 Lm |
| 34.006 | white | 4000ºK | 14W/m | 1450 Lm |
| 34.007 | white | 3000ºK | 14W/m | 1400 Lm |

**Connector IP65**
42.005   connector with cable of 100cm
42.004   kit (connector with cable of 10cm, closing endcap, cap with connector neck, screws and silicone)

**Connector IP20**
42.007   connector (without cable), suitable for screwing with cables

**Cap with connector neck**
19.251   transparent silicone      set of 10 units

**Closure endcaps**
19.181   transparent silicone

**Silicone**
22.033   High quality dielectric silicone   100ml

CE

# ecoled by Luz Negra

# MILANO GHOST PROFILE DOUBLE

High quality silicone opal profile, manufactured with a 230V led strip inside. It allows us to iluminate cavities and cornises etc. and offers up to 25 metre without luminosity drops. It has 2 side grooves which means we can screw or nail the profile on to the desired surface. Aluminium is not required for heat dissipation and it can work for 24h non stop. It can be cut every 10cm, consumtion 35W/m, offering 3900 Lm/W. It can be regulated with triac dimmer.

Thanks to its screwable connection kit, welding is not necessary. Its waterproofing of IP67 an UV protection turns it into a ideal product for outdoor use and also humid zones (it is extremely necessary to completely seal the connector and end cap with the recommended silicone).
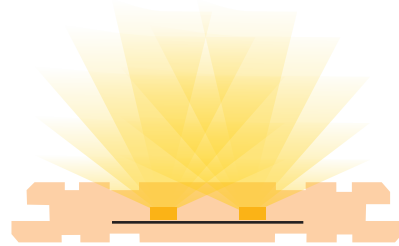
Supplied in 100m rolls, or cut to requested length (MOQ 1m).

**We offer a 2 year guarantee which can be extended to 3 years if the requested connections are carried out by Luz Negra. Spanish design and patent.**

Scale 1:2

Scale 1:1

| Power (W) | 35W/m |
|---|---|
| Voltage (V) | 230V |
| Light emission | 120° |
| Waterproofing | IP67 |
| Nº leds/m | 280 |
| Cuttable | every 100mm |
| Working temperature | -20ºC / +40ºC |
| Apt for | indoor / outdoor |
| Packaging | by metre |
| Guarantee | 3 years |

**Ghost profile Milano doble**

| 34.009 | white | 4000ºK | 35W/m | 3750 Lm |
|---|---|---|---|---|
| 34.010 | white | 3000ºK | 35W/m | 3650 Lm |

**Connector IP65**

42.005    connector with cable of 100cm

42.004    kit (connector with cable of 10cm, closing endcap, cap with connector neck, screws and silicone)

**Connector IP20**

42.007    connector (without cable), suitable for screwing with cables

**Cap with connector neck**

19.251    transparent silicone        set of 10 units

**Closure endcaps**

19.181    transparent silicone

**Silicone**

22.033    High quality dielectric silicone    100ml

CE

# ecoled by Luz Negra

High quality silicone opal profile, manufactured with a 230V led strip inside. It allows us to illuminate cavities and cornises etc. and offers up to 50 metre without luminosity drops. It has 2 side grooves which means we can screw or nail the profile onto the desired surface. Aluminium is not required for heat dissipation and it can work for 24h non stop. It can be cut every 10cm, consumption 14W/m, offering 1500 Lm/W. It can be regulated with triac dimmer.

Thanks to its screwable connection kit, welding is not necessary. Its waterproofing of IP67 and UV protection turn it into an ideal product for outdoor use and also humid zones (it is extremely necessary to completely seal the connector and end cap with the recommended silicone).

Supplied in 100m rolls, or cut to requested length (MOQ 1m).

**We offer a 2 year guarantee which can be extended to 3 years if the requested connections are carried out by Luz Negra. Spanish design and patent.**
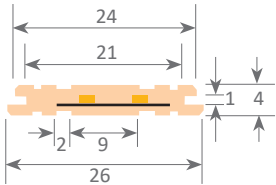
# AMSTERDAM GHOST PROFILE

Scale 1:2

Scale 1:1

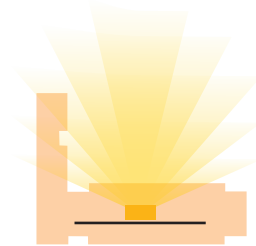| Power (W) | 14W/m |
|---|---|
| Voltage (V) | 230V |
| Light emission | 120º |
| Waterproofing | IP67 |
| Nº leds/m | 140 |
| Cuttable | every 100mm |
| Working temperature | -20ºC / +40ºC |
| Apt for | indoor / outdoor |
| Packaging | by metre |
| Guarantee | 3 years |

**Ghost profile Amsterdam**

| 34.011 | white | 6000ºK | 14W/m | 1500 Lm |
| 34.012 | white | 4000ºK | 14W/m | 1450 Lm |
| 34.013 | white | 3000ºK | 14W/m | 1400 Lm |

**Connector IP65**
42.005   connector with cable of 100cm
42.004   kit (connector with cable of 10cm, closing endcap, cap with connector neck, screws and silicone)

**Connector IP20**
42.007   connector (without cable), suitable for screwing with cables

**Cap with connector neck**
19.251   transparent silicone      set of 10 units

**Closure endcaps**
19.181   transparent silicone

**Silicone**
22.033   high quality dielectric silicone    100ml

CE

# SOPHIA GHOST PROFILE

High quality silicone opal profile, manufactured with a 230V led strip inside. It allows us to illuminate cavities and cornises etc. and offers up to 50 metre without luminosity drops. It has 2 side grooves which means we can screw or nail the profile onto the desired surface. Aluminium is not required for heat dissipation and it can work for 24h non stop. It can be cut every 10cm, consumption 14W/m, offering 1500 Lm/W.It can be regulated with triac dimmer.

Thanks to its screwable connection kit, welding is not necessary. Its waterproofing of IP67 and UV protection turn it into an ideal product for outdoor use and also humid zones (it is extremely necessary to completely seal the connector and end cap with the recommended silicone).

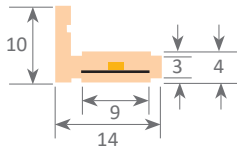Supplied in 100m rolls, or cut to requested length (MOQ 1m).

**We offer a 2 year guarantee which can be extended to 3 years if the requested connections are carried out by Luz Negra. Spanish design and patent.**

Scale 1:2

Scale 1:1

14.56
9
5
18
24

| Power (W) | 14W/m |
| --- | --- |
| Voltage (V) | 230V |
| Light emission | 120° |
| Waterproofing | IP67 |
| N° leds/m | 140 |
| Cuttable | every 100mm |
| Working temperature | -20°C / +40°C |
| Apt for | indoor / outdoor |
| Packaging | by metre |
| Guarantee | 3 years |

**Ghost profile Sophia**

| 34.014 | white | 6000°K | 14W/m | 1500 Lm |
| 34.015 | white | 4000°K | 14W/m | 1450 Lm |
| 34.016 | white | 3000°K | 14W/m | 1400 Lm |

**Connector IP65**
42.005   connector with cable of 100cm
42.004   kit (connector with cable of 10cm, closing endcap, cap with connector neck, screws and silicone)

**Connector IP20**
42.007   connector (without cable), suitable for screwing with cables

**Cap with connector neck**
19.251   transparent silicone      set of 10 units

**Closure endcaps**
19.181   transparent silicone

**Silicone**
22.033   High quality dielectric silicone   100ml

CE

# ¿Do you know the advantatges of using INFINITY which works directly at 230V?

1. Compared with other Asian models, Infinity uses only 17% of its leds nominal power; we use a 0.6W led that works at only 0.1W; even working 24h continuously it does not heat up and does not need any type of aluminum profile for heat dissipation.

2. We can connect up to 50m from one end, without a drop in luminosity.

3. We offer a range of connectors, joints and IP67 leads, which can be screwed on without any welding.

4. Power supplies are not needed.

5. With only a power of 14W/m, it offers 1500 lumens per metre, so we obtain more than 100W/m (something new in led strips at 230V).

6. It offers 140 leds/m SMD 2835, which guarantees an excellent dot free effect.

7. It is made of high quality silicone (UC class F1 UL94 and VOC free), which is more flexible compared to PVC led strips (Shore 85 flexibility). This material permits outdoor use without yellowing or cracking. Moreover, its weight is lower than that of PVC strips.

8. It can be introduced in almost all standard led profiles due to its reduced size.

9. We include the bridge rectifier in the PCB and not in an external box, so the cable output is clean without other components.

10. Its chips have the unique double welding process in its wire, so they are much more resistant.

11. The silicone inside this strip offers a real IP67 waterproofing, tested in salt mist chambers, so it can be installed even in places near the sea.

12. Allows us to control luminosity by using triac dimmers.

13. It has a low flicker, almost impossible to be seen.

14. It offers a Spanish patent and design.

We have available CE (LVD & EMC) and RoHS certification

# INFINITY our new led strip at 230V
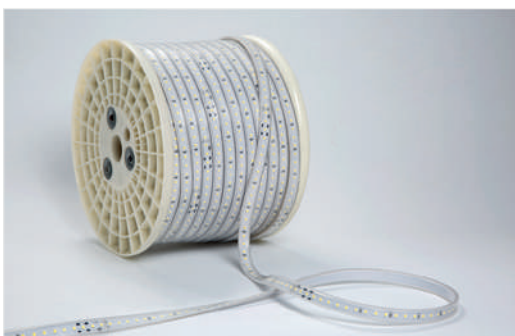


Available in 100m rolls. Also available in single metre (same price).

Available in warm white 3000°K, neutral white 4500°K and cool white 6000°K.

Range of connectors, joints and IP67 junction boxes, which can be screwed on without welding.

INFINITY

Ref: 34.001       6500ºK
Ref: 34.002       4500ºK
Ref: 34.003       3000ºK
Ref: 34.004       2700ºK

Single-coloured flexible led strip of medium luminosity at 230V, IP67 with 140 leds/metre and cuttable every 100mm.
**12mm PCB.**

Daily recommended use: 24h
Maximum connection per section: 50m

**Connector IP65**

42.005   connector with cable of 100cm
42.004   kit (connector with cable of 10cm, closure endcap, cap with connector neck, screws and silicone)

**Silicone**
22.033   Silicone tube           100ml

**Connector IP20**
42.007   connector (without cable), suitable for screwing with cables

**Cap with connector neck**
19.251   transparent silicone     set of 10 units

**Clip**
20.041   silicone

**Closure endcaps**
19.181   transparent silicone

| | |
|---|---|
| Power (W) | 14W/m |
| Voltage (V) | 230V |
| Led type | SMD2110 |
| Lumens (6500ºK) | 1600 Lm/m |
| Lumens (4500ºK) | 1450 Lm/m |
| Lumens (3000ºK) | 1350 Lm/m |
| Lumens (2700ºK) | 1350 Lm/m |
| Light emission | 120º |
| Waterproofing | IP67 |
| Nº leds/m | 140 |
| Measurements | 12x4mm |
| Cuttable | every 100mm |
| PCB | 12mm |
| Working temperature | -20ºC / +40ºC |
| Apt for | indoor / outdoor |
| Packaging | by metre |
| Guarantee | 3 years waterproofed by Luz Negra |
| Guarantee | 2 years waterproofed by client |

CE   RoHS COMPLIANT

- Photometric curves available and files IES & LDT for DIAL**ux and RE**LUX carried out in our laboratory under petition.
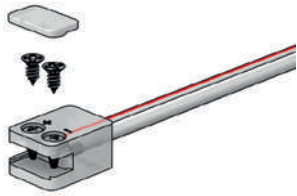
## Connectors for waterproof strips (with screw system, no need for welding)

Our new IP67 connectors make led strip connections easier, as there is no soldering involved. Only 2 screws are required like in conventional terminal blocks. We can achieve a waterproofing of IP67 by using silicone and caps.

42.005    connector with cable of 100cm
42.004    kit (connector with cable of 10cm, closure endcap, cap with connector neck, screws and silicone)
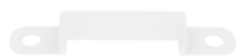
1.    We cut the led strip where indicated.
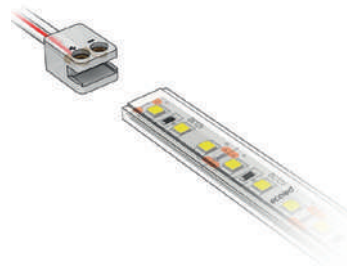
2.    We place the strip inside the connector.
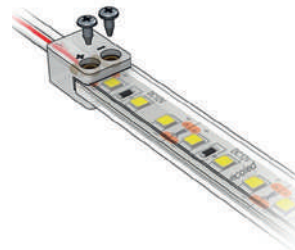
3.    We tighten the screws on the connector.
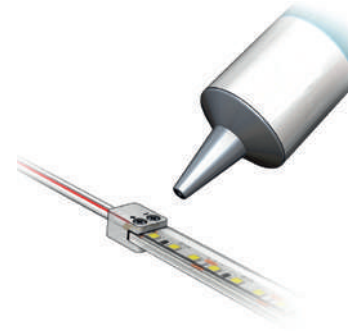
4.    We apply silicone on top of the screws.
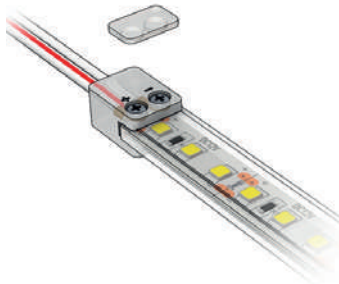
5.    We put the plastic trim on top of the screws.
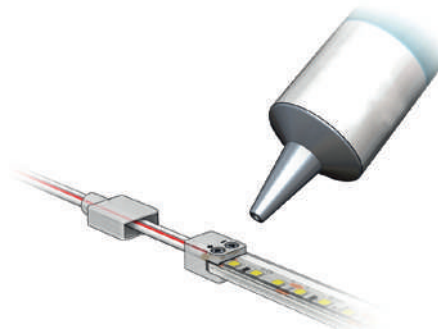
6.    We apply silicone to cover the connector and then we attach the cap.
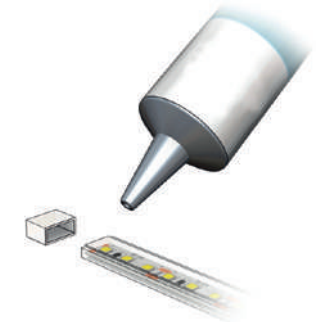
7.    We apply silicone to the end of the strip and we fix the endcap.

**Connectors compatible with our led strips:**

- INFINITY
- SOPHIA GHOST PROFILE
- MILANO GHOST PROFILE
- MILANO DOBLE GHOST PROFILE
- AMSTERDAM GHOST PROFILE
- IBIZA
- ZAFIRO
- VIZCAYA
- CANOVELLES

This can be used with the majority of IP20 led strips with a 10mm PCB (single-coloured).

**Connectors compatible with led Profile:**

- BERNA
- OSLO
- NEW YORK
- PHILADELPHIA
- DUBLIN XL.
- TORINO WITH LP50
- KANSAS
- PARIS XL
- ROMA XL
- BERLIN XL
- SOPHIA XL
- VERSALLES
- INFERNO
- BUDAPEST

## UP TO 30 METRES electric feed from only one end

**48V**

**30 METRES**

Driver

## UP TO 50 METRES electric feed from both ends

**48V**

**50 METRES**

Driver

Up to 50m
without any
drop in voltage

ecoled Castellón

## CASTELLON ⁴⁸ᵛ

| Ref: 33.036 | 6000°K |
| Ref: 33.037 | 4000°K |
| Ref: 33.038 | 2800°K |

Single-coloured flexible strip **"PRO"**
IP20 with 150 leds/metre 2835SMD.
Requires use with led profile to permit dissipation.
**10mm PCB**
Daily recommended use:18h
Maximum connection in open circuit: 30m
Maximum connection in closed circuit: 50m

| | |
|---|---|
| Power (W) | 12.8W/m |
| Voltage (V) | 48V |
| Led type | SMD2835 |
| Lumens ⁽⁶⁰⁰⁰°ᴷ⁾ | 1327 Lm/m |
| Lumens ⁽⁴⁰⁰⁰°ᴷ⁾ | 1270 Lm/m |
| Lumens ⁽²⁸⁰⁰°ᴷ⁾ | 1190 Lm/m |
| Light emission | 120° |
| Waterproofing | IP20 |
| Nº leds/m | 150 |
| Measurements | 10000x10x1.2mm |
| Cuttable | every 100mm |
| PCB | 10mm |
| Working temperature | -20°C / +40°C |
| Apt for | indoor |
| Packaging | 1 roll/10m |
| Guarantee | 3 years |

# ecoled *by Luz Negra*

# COB
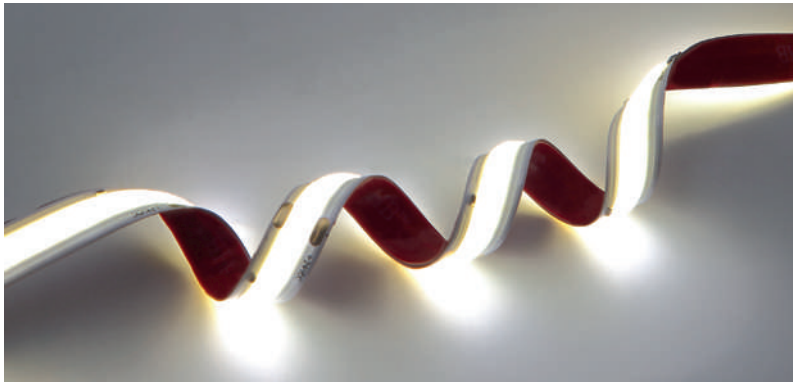
## COB

| Ref: 31.001 | 6500°K |
| Ref: 31.002 | 4000°K |
| Ref: 31.003 | 3000°K |
| Ref: 31.004 | 2500°K |

Our new flexible led strips with COB technology, allow us to light up luminaires achieving a non-dotting effect. Compared with other conventional ones, our COB strips have the chip directly fixed on the PCB, without requiring a SMD frame. This way, as it is fixed directly to the base of the strip, it offers improved thermal dissipation but its structural strength is normaly less. However, our COB led strips have a small iron strip incorporated at the back of the PCB which improves heat dissipation. Its strong point is that it offers 80% more in resistance compared with the rest of COB strips on the market.

Maximum connection in open circuit: 5m
Maximum connection in closed circuit: 10m
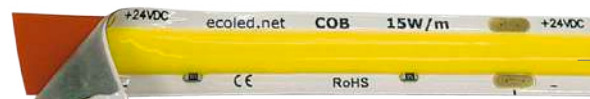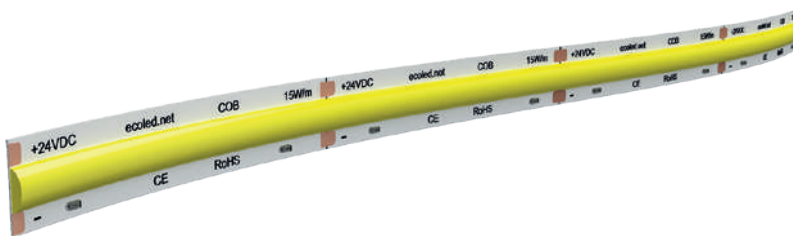
phosphorous

3M VHB adhesive thermal tape

**iron strip**

PCB

2mm
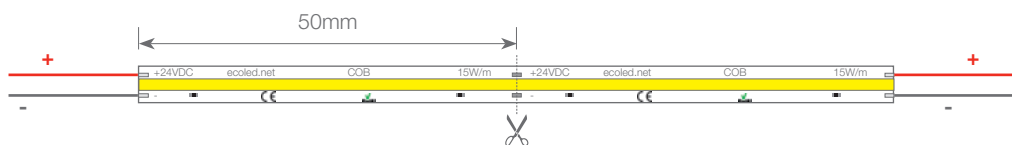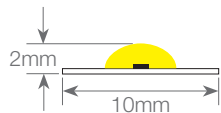
10mm

50mm

| Power (W) | 15W/m |
|---|---|
| Voltage (V) | 24V |
| Led type | COB |
| Lumens (6500°K) | 1530 Lm/m |
| Lumens (4000°K) | 1500 Lm/m |
| Lumens (3000°K) | 1400 Lm/m |
| Lumens (2500°K) | 1330 Lm/m |
| Light emission | 180° |
| Waterproofing | IP20 |
| N° chips/m | 480 |
| Measurements | 4x10x5000mm |
| Cuttable | every 50mm |
| PCB | 10mm |
| Working temperature | -20°C / +40°C |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 2 years |

## LUZ NEGRA

Test LM79 con esfera                1 Of 3

### Spectrum Test Report

**Color Parameters:**

Chromaticity Coordinate:x=0.3767  y=0.3754/u'=0.2232 v'=0.5004
CCT=4092K(Duv=0.0004) Dominant WL:Ld =578.5nm Purity=25.7%
Ratio:R=20.3% G=74.9% B=4.8%;;Peak WL:Lp=446.8nm  FWHM=19.3nm
Render Index:Ra=98.3   CRI=97.4  TM30:Rf=96 Rg=102

| | | | | | |
|---|---|---|---|---|---|
| R1 =99 | R2 =100 | R3 =98 | R4 =96 | R5 =98 | R6 =98 | R7 =99 |
| R8 =98 | R9 =96 | R10=99 | R11=93 | R12=91 | R13=99 | R14=99 | R15=99 |

**Photo Parameters:**

Flux  = 2258 lm   Eff. : 113.45 lm/W  Pe  = 8.230 W

**Electrical parameters:**

V = 23.998 V    I = 0.8293 A   P = 19.90 W PF = 1.000

Status: Integral T = 810 ms  Ip = 52665 (80%)

Model:Sevilla 4000K          Number:33.003
Tester:Sergio carneros       Date:2020-01-21 10:29:33
Temperature:13Deg            Humidity:48%
Manufacturer:Luz Negra       Remarks:Led Strip 100cm

Rf: 96    CCT: 4092 K    u': 0.2232
Rg: 102   Duv: 0.0004    v': 0.5004

## SEVILLA FULL COLOUR

Ref: 33.003          4000°K
Ref: 33.004          2700°K

Single-coloured flexible strip **"PRO"**
IP20 with 160 leds/metre 2835SMD.
Requires use with led profile to permit dissipation.
**10mm PCB**
Daily recommended use:18h
Maximum connection in open circuit: 5m
Maximum connection in closed circuit: 10m

| | |
|---|---|
| Power (W) | 20W/m |
| Voltage (V) | 24V |
| Led type | SMD2835 |
| Lumens (4000°K) | 2258 Lm/m |
| Lumens (2700°K) | 2017 Lm/m |
| Light emission | 120° |
| Waterproofing | IP20 |
| N° leds/m | 160 |
| Measurements | 5000x10x1.2mm |
| Cuttable | every 50mm |
| PCB | 10mm |
| Working temperature | -20°C / +40°C |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

### FULL COLOUR LED:
### very high quality chromatic reproduction

Full spectrum refers to the completeness of a light source's spectral energy, particularly when compared to natural light sources such as natural daylight. The colours of all objects are highlighted as closely as possible to their real colour as the light closely mimics that of natural daylight. The colour rendering index (CRI) tells us about the way colours appear under a light source and its highest score is at 100, meaning that natural daylight has a CRI value of 100.
Thanks to the very high CRI (97-100) in our Sevilla led strip, we achieve a chromatic reproduction which is almost perfect, mimicking how we perceive the objects in sunlight.

## LUZ NEGRA

### Spectrum Test Report



Spectrum 1.0=113.764mW/nm

CIE1931 EVERFINE
x = 0.3781 y = 0.3758
CCT = 4055K
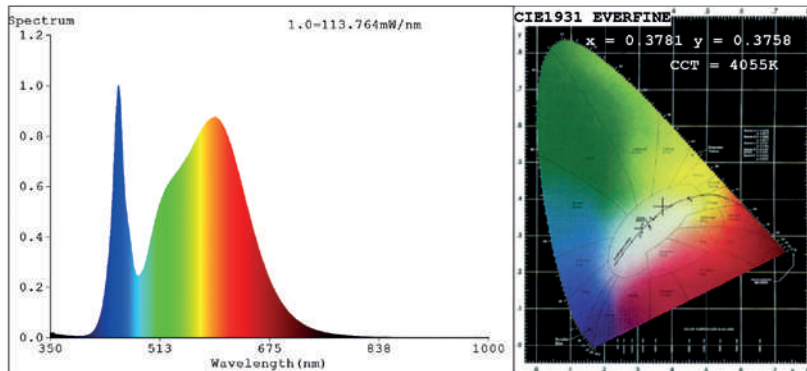
#### Color Parameters:

Chromaticity Coordinate:x=0.3781   y=0.3758/u'=0.2240 v'=0.5008
CCT=4055K(Duv=0.0002) Dominant WL:Ld =578.7nm Purity=26.3%
Ratio:R=18.0% G=78.5% B=3.5%;;Peak WL:Lp=450.8nm   FWHM=21.6nm
Render Index:Ra=82.2   CRI=75.3   TM30:Rf=81 Rg=95

| R1 =80 | R2 =88 | R3 =94 | R4 =81 | R5 =80 | R6 =84 | R7 =86 |
| R8 =64 | R9 =5 | R10=72 | R11=80 | R12=61 | R13=82 | R14=97 | R15=74 |

#### Photo Parameters:

Flux  = 5732 lm   Eff. : 145.22 lm/W  Fe  = 17.46 W

#### Electrical parameters:

V = 23.998 V    I = 1.645 A    P = 39.47 W PF = 1.000

Status:  Integral T = 250 ms  Ip = 47757 (73%)

| Model:Córdoba 4000K | Number:33.001 |
| Tester:Sergio Carneros | Date:2020-01-21 11:44:02 |
| Temperature:13Deg | Humidity:48% |
| Manufacturer:Luz Negra | Remarks:Led Strip 100cm |

## CORDOBA HIGH LUMINOSITY



| Ref: 33.001 | 4000ºK |
| Ref: 33.002 | 2700ºK |

Single-coloured flexible strip "**PRO**"
IP20 with 192 leds/metre 3040SMD.
Requires use with led profile to permit dissipation.
**10mm PCB**
Daily recommended use:18h
Maximum connection in open circuit: 3m
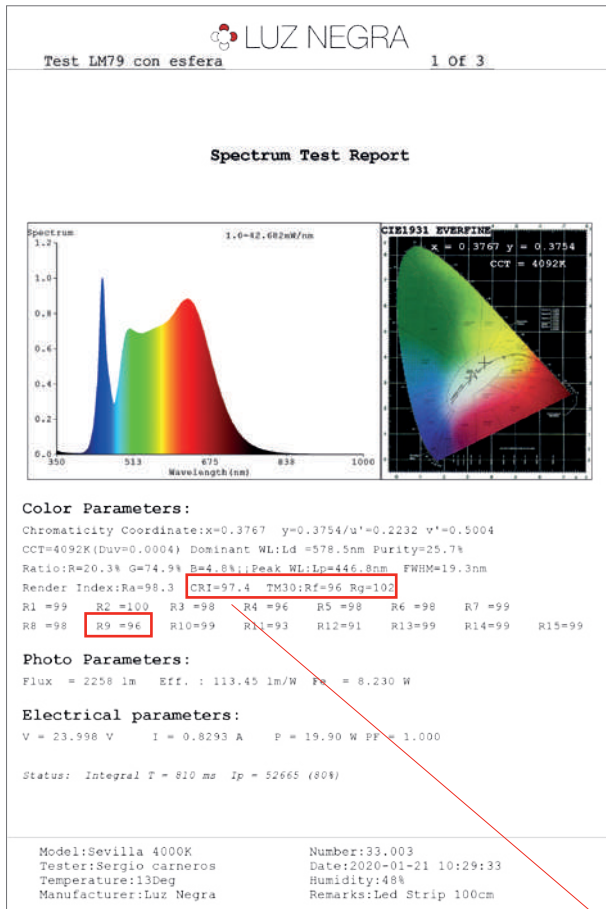Maximum connection in closed circuit: 6m

| | |
|---|---|
| Power (W) | 40W/m |
| Voltage (V) | 24V |
| Led type | SMD3040 |
| Lumens (4000ºK) | 5732 Lm/m |
| Lumens (2700ºK) | 5355 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 192 |
| Measurements | 3000x10x1.2mm |
| Cuttable | every 41mm |
| PCB | 10mm |
| Working temperature | -20°C / +40°C |
| Apt for | indoor |
| Packaging | 1 roll/3m |
| Guarantee | 3 years |

*HIGH LUMINOSITY LED:*
*more than 5700 lumens/metre*

Our new ecoled strip, Córdoba model, with a PCB of 10mm is probably the brightness flexible strip on the market. Its high luminosity can be compared with constant current rigid strips, used for large luminaires. Due to its high power, it is of utmost importance to apply thermal conductive tape (Ref: 42.039, see page 332), and to be used with aluminum profiles with a high thermal dissipation capacity, such as our Inferno, Versailles, Berlin XL, Roma XL and similar models.

Our new ELITE series represents a "before and after" in the understanding of flexible led strips.

Up to now, depending on the power and luminosity of the strip, we would use a different quantity of leds, meaning a different cutting length and often different voltages (12V - 24V). We could also see differences in the type of led (SMD3528 - SMD2835 - SMD5050, etc…).

However our new ELITE series (with high quality SAMSUNG led) offers a brightness uniformity unseen so far on the market, where all the parameters remain the same even if power and luminosity vary.

We would like to highlight that the ELITE 5 model is the only led strip on the market which, apart from offering only 5W/m, gives a totally dot free effect with conventional led profiles.

**The ELITE 15 model is available also in the additional warm tones:**
**2100°K - 2400°K - 2700°K.**

- ■ One led: 2835 SMD **SAMSUNG**

- ■ The same quantity of leds: 140 leds/metre

- ■ The same cutting length: 50mm / every 7 leds

- ■ The same voltage: 24V

ELITE 5    5W    Medium luminosity flexible strip, 24V. Can be cut every 7 leds.
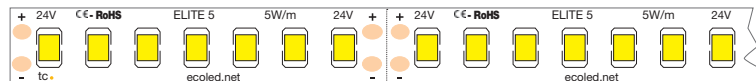


ELITE 10    10W    Medium luminosity flexible strip, 24V. Can be cut every 7 leds.
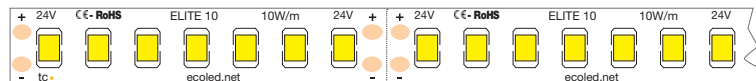


ELITE 15    15W    Medium luminosity flexible strip, 24V. Can be cut every 7 leds.
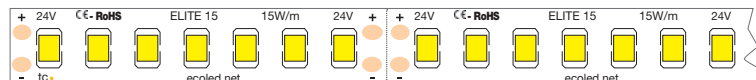


ELITE 20    20W    Medium luminosity flexible strip, 24V. Can be cut every 7 leds.
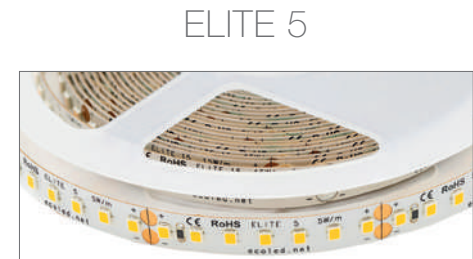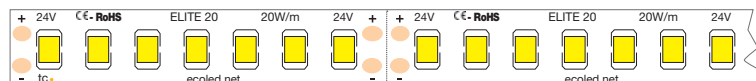


### ELITE 5



Ref: 31.005      6500°K
Ref: 31.006      4000°K
Ref: 31.007      3000°K

Single-coloured flexible strip **ELITE**
IP20 with 140 leds/metre 2835SMD.
**10mm PCB.**
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**CRI >80.**
Daily recommended use: 18h
Maximum connection in open circuit: 12m
Maximum connection in closed circuit: 20m

4
POWERS

MAXIMUM

UNIFORMITY

| Power (W) | 5W/m |
|---|---|
| Voltage (V) | 24V |
| Led type | SMD2835 |
| Lumens (6500°K) | 700 Lm/m |
| Lumens (4000°K) | 705 Lm/m |
| Lumens (3000°K) | 680 Lm/m |
| Light emission | 120° |
| Waterproofing | IP20 |
| Nº leds/m | 140 |
| Measurements | 5000x10x1.2mm |
| Cuttable | every 50mm |
| PCB | 10mm |
| Working temperature | -40ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

## ELITE 10

Ref: 31.008      6500ºK
Ref: 31.009      4000ºK
Ref: 31.010      3000ºK

Single-coloured flexible strip **ELITE**
IP20 with 140 leds/metre 2835SMD.
**10mm PCB.**
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**CRI >80.**
Daily recommended use: 18h
Maximum connection in open circuit: 10m
Maximum connection in closed circuit: 18m

| Power (W) | 10W/m |
|---|---|
| Voltage (V) | 24V |
| Led type | SMD2835 |
| Lumens (6500ºK) | 1250 Lm/m |
| Lumens (4000ºK) | 1200 Lm/m |
| Lumens (3000ºK) | 1150 Lm/m |
| Led type | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 140 |
| Measurements | 5000x10x1.2mm |
| Cuttable | every 50mm |
| PCB | 10mm |
| Working temperature | -40ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

## ELITE 15

Ref: 31.011      6500ºK
Ref: 31.012      4000ºK
Ref: 31.013      3000ºK
Ref: 31.014      2700ºK
Ref: 31.015      2400ºK
Ref: 31.016      2100ºK

Single-coloured flexible strip **ELITE**
IP20 with 140 leds/metre 2835SMD.
**10mm PCB.**
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**CRI >80.**
Daily recommended use: 18h.
Maximum connection in open circuit: 8m
Maximum connection in closed circuit: 15m

| Power (W) | 15W/m |
|---|---|
| Voltage (V) | 24V |
| Led type | SMD2835 |
| Lumens (6500ºK) | 1920 Lm/m |
| Lumens (4000ºK) | 1875 Lm/m |
| Lumens (3000ºK) | 1850 Lm/m |
| Lumens (2700ºK) | 1800 Lm/m |
| Lumens (2400ºK) | 1725 Lm/m |
| Lumens (2100ºK) | 1500 Lm/m |
| Led type | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 140 |
| Measurements | 5000x10x1.2mm |
| Cuttable | every 50mm |
| PCB | 10mm |
| Working temperature | -40ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

## ELITE 20

Ref: 31.017      6500ºK
Ref: 31.018      4000ºK
Ref: 31.019      3000ºK

Single-coloured flexible strip **ELITE**
IP20 with 140 leds/metre 2835SMD.
**10mm PCB.**
Requires use with led profile to permit dissipation.
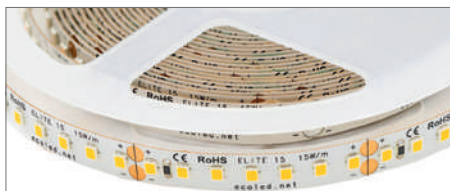**Heat dissipation tape included.**
**CRI >80.**
Daily recommended use: 18h
Maximum connection in open circuit: 5m
Maximum connection in closed circuit: 10m

| Power (W) | 20W/m |
|---|---|
| Voltage (V) | 24V |
| Led type | SMD2835 |
| Lumens (6500ºK) | 2060 Lm/m |
| Lumens (4000ºK) | 2050 Lm/m |
| Lumens (3000ºK) | 2010 Lm/m |
| Led type | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 140 |
| Measurements | 5000x10x1.2mm |
| Cuttable | every 50mm |
| PCB | 10mm |
| Working temperature | -40ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

CE RoHS COMPLIANT

- Photometric curves and IES & LDT files (for DIAL**ux** and **RE**LUX), can be carried out in our laboratory and available on request.

## PINK 10



Ref: 30.001                                PINK (PINK 10)

Single-coloured flexible led strip with **"PINK EFFECT"**, very useful for combining with neon type silicone profiles.
Requires use with led profile to permit dissipation.
**5mm PCB**
Daily recommended use: 18h
Maximum connection in open circuit: 3m
Maximum connection in closed circuit: 6m
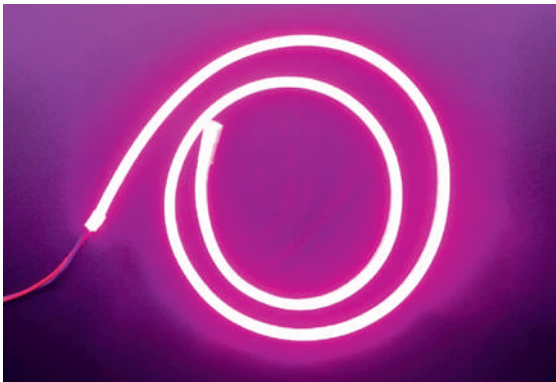
| Power (W) | 10W/m |
|---|---|
| Voltage (V) | 12V |
| Lumens | 200 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 120 |
| Measurements | 5000x5x1.2mm |
| Cuttable | every 25mm |
| Guarantee | 3 years |

## PINK 20



Ref: 31.020                                PINK (PINK 20)

Single-coloured flexible led strip with **"PINK EFFECT"**, very useful for combining with neon type silicone profiles.
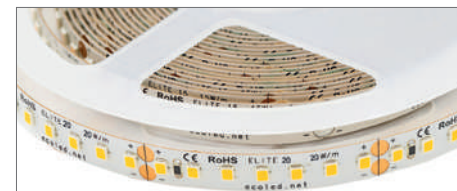Requires use with led profile to permit dissipation.
**10mm PCB**
Daily recommended use: 18h
Maximum connection in open circuit: 3m
Maximum connection in closed circuit: 6m

| Power (W) | 20W/m |
|---|---|
| Voltage (V) | 24V |
| Lumens | 420 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 168 |
| Measurements | 5000x10x1.2mm |
| Cuttable | every 42mm |
| Guarantee | 3 years |

CE RoHS COMPLIANT

- Photometric curves and IES & LDT files (for DIAL**ux** and **RE**LUX), can be carried out in our laboratory and available on request.

## ¿What is the PREMIUM RETAIL series?

This is a led strip series, which is specifically oriented towards retail channels and commerce. Their CRI ratings are high (90-95), they are equipped with voltage stabilizers (which allow us to make longer installations without running the risk of voltage drops), their performance rating is of 100 lumens/W (higher than regular led strips) and they offer a **4 year guarantee.**

## ¿Why should I choose the PREMIUM RETAIL series?

Most of the led strips currently available on the market have CRI (Colour Rendering Index) ratings ranged between 60 and 80.
Our Premium Retail series offers CRI values placed between 90 and 95.

## ¿What is the purpose of having a high CRI rating?

The light emission of led Strips with high CRI ratings does not distort the colours of images as the human eye sees them. Therefore, by using them, we are able to see the true colours of fabrics, fibres, textile products and other materials.

## ¿Why don't all led strips have a high CRI?

First of all, high rated CRI performances can be useful only when warm or neutral colours are being used. Furthermore, in such cases we use a different and more expensive type of phosphorous, which also affects the led strip by reducing its lighting performance in 20% compared with regular led strips. Therefore, unless the product is oriented towards retail channels or similar targets, the product is not advisable.

### Led strip with CRI>80



### Led strip with CRI>98
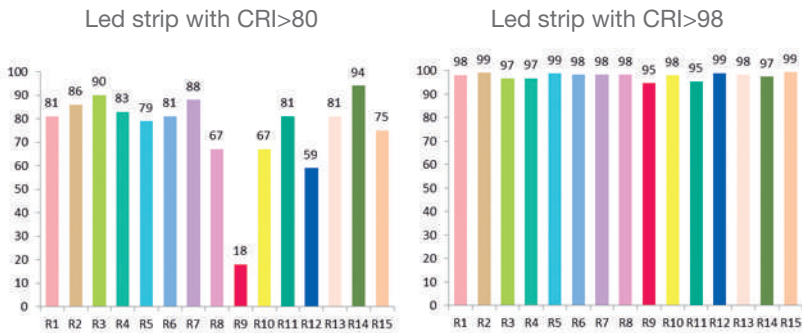


If we compare luminosity with both high and low CRI, those colours with a low CRI rating appear less real and more faded.



CRI >90



CRI 60

# PREMIUM RETAIL Led strips



Colour values in high rated CRI led strips are also greater than those offered by regular strips. Amongst these colour values, "R9" significantly affects the overall results and it is considered the most important value.

By using our spectroradiometer, which is also equipped with an integrated sphere, we can carry out readings for the different "R" values in order to ensure a high CRI rating.
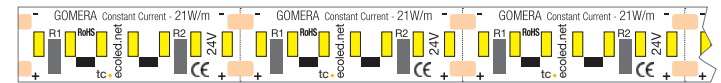


ecoled GOMERA. High luminosity flexible strip, current stabiliser, 24V, IP20, 10mm PCB. Can be cut every 7 leds.
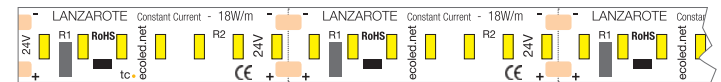


ecoled LANZAROTE. High luminosity flexible strip, current stabiliser, 24V, IP20, 10mm PCB. Can be cut every 7 leds.
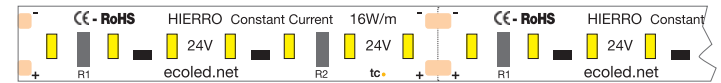


ecoled HIERRO. Medium luminosity flexible strip, current stabiliser, 24V, IP20, 10mm PCB. Can be cut every 7 leds.



ecoled TENERIFE. Low luminosity flexible strip, current stabiliser, 24V, IP20, 10mm PCB. Can be cut every 7 leds.



ecoled PALMA. Low luminosity flexible strip, current stabiliser, 24V, IP20, 10mm PCB. Can be cut every 7 leds.

## PALMA

Ref: 33.005          4200ºK
Ref: 33.006          3200ºK
Ref: 33.007          2850ºK

Single-coloured **PREMIUM RETAIL** flexible strip
IP20, with 56 leds/metre 3014SMD.
**10mm PCB.**
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**Current stabiliser.**
**CRI >90.**
Daily recommended use: 18h
Maximum connection in open circuit: 10m
Maximum connection in closed circuit: 20m

| Power (W) | 4.8W/m |
|---|---|
| Voltage (V) | 24V |
| Led type | SMD3014 |
| Lumens (4200ºK) | 480 Lm/m |
| Lumens (3200ºK) | 450 Lm/m |
| Lumens (2850ºK) | 430 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 56 |
| Measurements | 5000x10x1.2mm |
| Cuttable | every 125mm |
| PCB | 10mm |
| Working temperature | -40ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 4 years |

## TENERIFE

Ref: 33.008          4200ºK
Ref: 33.009          3200ºK
Ref: 33.010          2850ºK
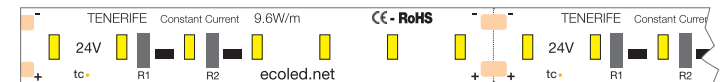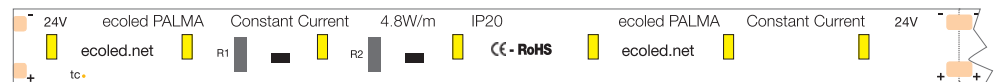
Single-coloured **PREMIUM RETAI**L flexible strip
IP20, with 112 leds/metre 3014SMD.
**10mm PCB.**
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**Current stabiliser.**
**CRI >90.**
Daily recommended use: 18h
Maximum connection in open circuit: 10m
Maximum connection in closed circuit: 20m

| Power (W) | 9.6W/m |
|---|---|
| Voltage (V) | 24V |
| Led type | SMD3014 |
| Lumens (4200ºK) | 960 Lm/m |
| Lumens (3200ºK) | 900 Lm/m |
| Lumens (2850ºK) | 864 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 112 |
| Measurements | 5000x10x1.2mm |
| Cuttable | every 62.5mm |
| PCB | 10mm |
| Working temperature | -40ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 4 years |

**GUARANTEE**
4 YEARS

Heat dissipating adhesive tape on the base of the PCB

Phosphorous which conveys a CRI rating >90

"7 led" section which improves luminous efficiency

Current stabiliser which minimizes power decline

## HIERRO

Constant Current Driving System

Ref: 33.011     4200ºK
Ref: 33.012     3200ºK
Ref: 33.013     2850ºK

Single-coloured **PREMIUM RETAIL** flexible strip IP20, with 126 leds/metre 3014SMD.
**10mm PCB.**
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**Current stabiliser.**
**CRI >90.**
Daily recommended use: 18h
Maximum connection in open circuit: 7.5m
Maximum connection in closed circuit: 15m

| | |
|---|---|
| Power (W) | 16W/m |
| Voltage (V) | 24V |
| Led type | SMD3014 |
| Lumens (4200ºK) | 1850 Lm/m |
| Lumens (3200ºK) | 1700 Lm/m |
| Lumens (2850ºK) | 1500 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 126 |
| Measurements | 5000x10x1.2mm |
| Cuttable | every 55.55mm |
| PCB | 10mm |
| Working temperature | -40ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 4 years |

## LANZAROTE

Constant Current Driving System

Ref: 33.014     4200ºK
Ref: 33.015     3200ºK
Ref: 33.016     2850ºK

Single-coloured flexible strip **PREMIUM RETAIL** IP20 with 196 leds/metre 3014SMD.
**10mm PCB.**
Requires use with led profile to permit dissipation.
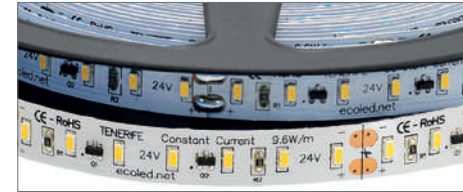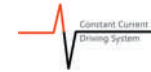**Heat dissipation tape included.**
**Current stabiliser.**
**CRI >90.**
Daily recommended use: 18h
Maximum connection in open circuit: 5m
Maximum connection in closed circuit: 10m

| | |
|---|---|
| Power (W) | 18W/m |
| Voltage (V) | 24V |
| Led type | SMD3014 |
| Lumens (4200ºK) | 2100 Lm/m |
| Lumens (3200ºK) | 2000 Lm/m |
| Lumens (2850ºK) | 1850 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 196 |
| Measurements | 5000x10x1.2mm |
| Cuttable | every 35.7mm |
| PCB | 10mm |
| Working temperature | -40ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 4 years |

## GOMERA
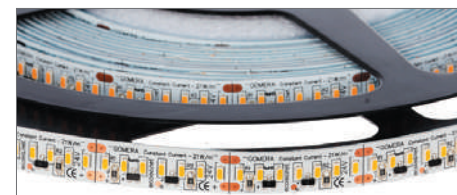
Constant Current Driving System

Ref: 33.017     4200ºK
Ref: 33.018     3200ºK
Ref: 33.019     2850ºK

Single-coloured flexible strip **PREMIUM RETAIL** IP20 with 238 leds/metre 3014SMD.
**10mm PCB.**
Requires use with led profile to permit dissipation.
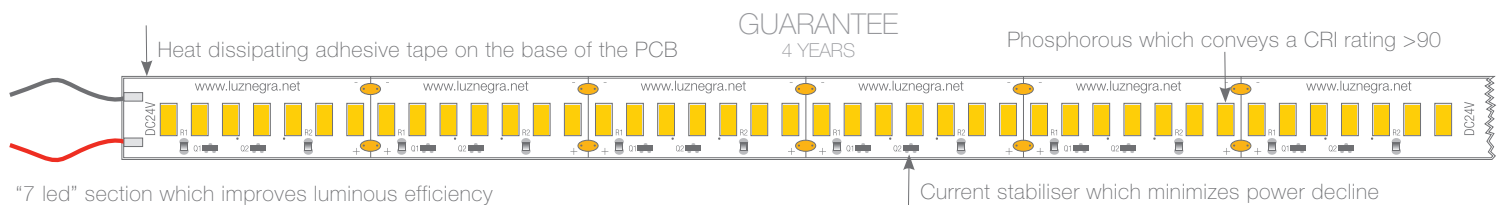**Heat dissipation tape included.**
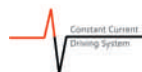**Current stabiliser.**
**CRI >90.**
Daily recommended use: 18h
Maximum connection in open circuit: 5m
Maximum connection in closed circuit: 10m

| | |
|---|---|
| Power (W) | 21W/m |
| Voltage (V) | 24V |
| Led type | SMD3014 |
| Lumens (4200ºK) | 2450 Lm/W |
| Lumens (3200ºK) | 2300 Lm/W |
| Lumens (2850ºK) | 2100 Lm/W |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 238 |
| Measurements | 5000x10x1.2mm |
| Cuttable | every 29.4mm |
| PCB | 10mm |
| Working temperature | -40ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 4 years |

CE · RoHS COMPLIANT

- Photometric curves and IES & LDT files (for DIAL**ux** and **RE**LUX), can be carried out in our laboratory and available on request.
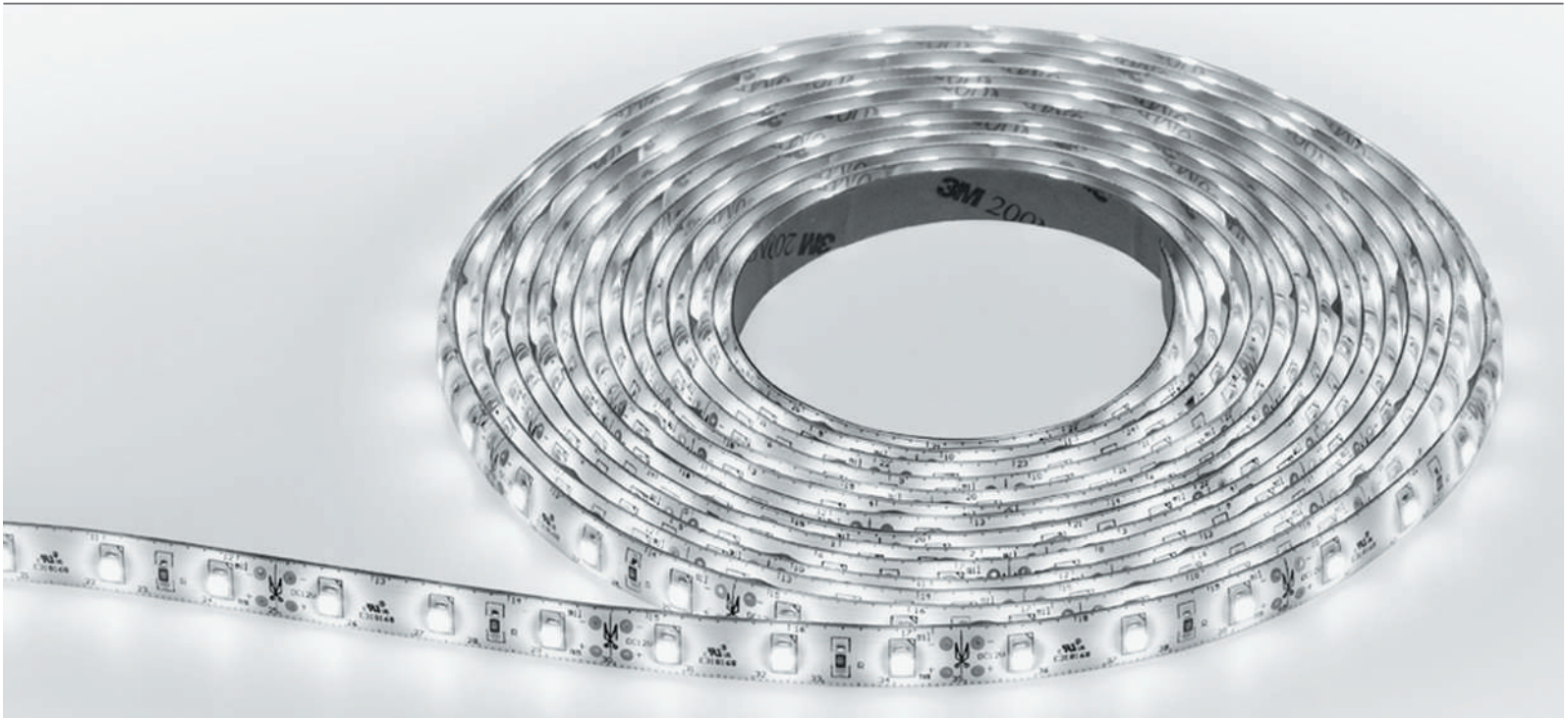
Low luminosity flexible strips which are ideal for ambience lighting or signage.

We would like to highlight the IBIZA led strip which is the star model in this series, offering maximum guarantee and reliability and has been our best seller since 2008. It is also the only strip in this section which offers our exclusive watertight system, waterproof DUO IP67.
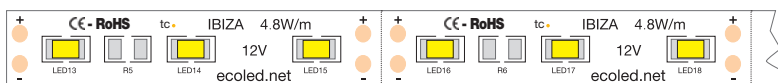


ecoled IBIZA "PRO"

Low luminosity flexible strip, 12V, IP67 waterproof DUO. 10mm PCB. Can be cut every 3 leds.
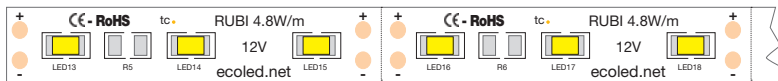


ecoled RUBI "BASIC"

Low luminosity flexible strip, 12V, IP65. 10mm PCB. Can be cut every 3 leds.



ecoled JADE "BASIC"

Low luminosity flexible strip, 12V, IP20. 8mm PCB. Can be cut every 3 leds.

## JADE

| | |
|---|---|
| Ref: 30.002 | 6500°K |
| Ref: 30.003 | 3500°K |

Single-coloured flexible strip **BASIC**
IP20 with 60 leds/metre 3528SMD.
**8mm PCB.**
Daily recommended use: 12h
Maximum connection in open circuit: 7.5m
Maximum connection in closed circuit: 15m

| | |
|---|---|
| Power (W) | 4.8W/m |
| Voltage (V) | 12V |
| Led type | SMD3528 |
| Lumens (6500°K) | 500 Lm/m |
| Lumens (3500°K) | 400 Lm/m |
| Light emission | 120° |
| Waterproofing | IP20 |
| N° leds/m | 60 |
| Measurements | 5000x8x3mm |
| Cuttable | every 50mm |
| PCB | 8mm |
| Working temperature | -20°C / +40°C |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 2 years |

## RUBI
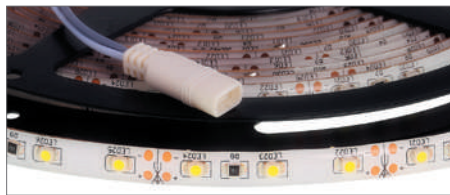
| | |
|---|---|
| Ref: 30.004 | 6000°K |
| Ref: 30.005 | 2800°K |
| Ref: 30.006 | red |
| Ref: 30.007 | blue |
| Ref: 30.008 | green |
| Ref: 30.009 | amber |

Single-coloured flexible strip **BASIC**
IP65 with 60 leds/metre 3528SMD.
**10mm PCB.**
Daily recommended use: 12h
Maximum connection in open circuit: 7.5m
Maximum connection in closed circuit: 15m

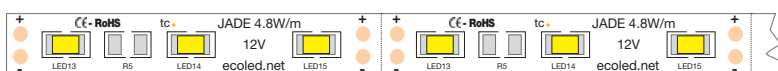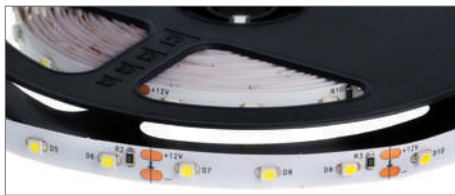| | |
|---|---|
| Power (W) | 4.8W/m |
| Voltage (V) | 12V |
| Led type | SMD3528 |
| Lumens (6000°K) | 400 Lm/m |
| Lumens (2800°K) | 300 Lm/m |
| Light emission | 120° |
| Waterproofing | IP65 |
| N° leds/m | 60 |
| Measurements | 5000x10x4mm |
| Cuttable | every 50mm |
| PCB | 10mm |
| Working temperature | -20°C / +40°C |
| Apt for | indoor / outdoor |
| Packaging | 1 roll/5m |
| Guarantee | 2 years |

## IBIZA

| | |
|---|---|
| REF: 30.010 | 7300°K |
| REF: 30.011 | 4000°K |
| REF: 30.012 | 2800°K |

Single-coloured flexible strip **Waterproof DUO**
PRO IP67 with 60 leds/metre 3528SMD.
**10mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 10m
Maximum connection in closed circuit: 20m

| | |
|---|---|
| Power (W) | 4.8W/m |
| Voltage (V) | 12V |
| Led type | SMD3528 |
| Lumens (7300°K) | 480 Lm/m |
| Lumens (4000°K) | 450 Lm/m |
| Lumens (2800°K) | 430 Lm/m |
| Light emission | 120° |
| Waterproofing | IP67 "DUO" |
| N° leds/m | 60 |
| Measurements | 5000x10x4mm |
| Cuttable | every 50mm |
| PCB | 10mm |
| Working temperature | -20°C / +40°C |
| Apt for | indoor / outdoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

CE RoHS COMPLIANT

- Photometric curves and IES & LDT files (for DIAL**ux** and **RE**LUX), can be carried out in our laboratory and available on request.
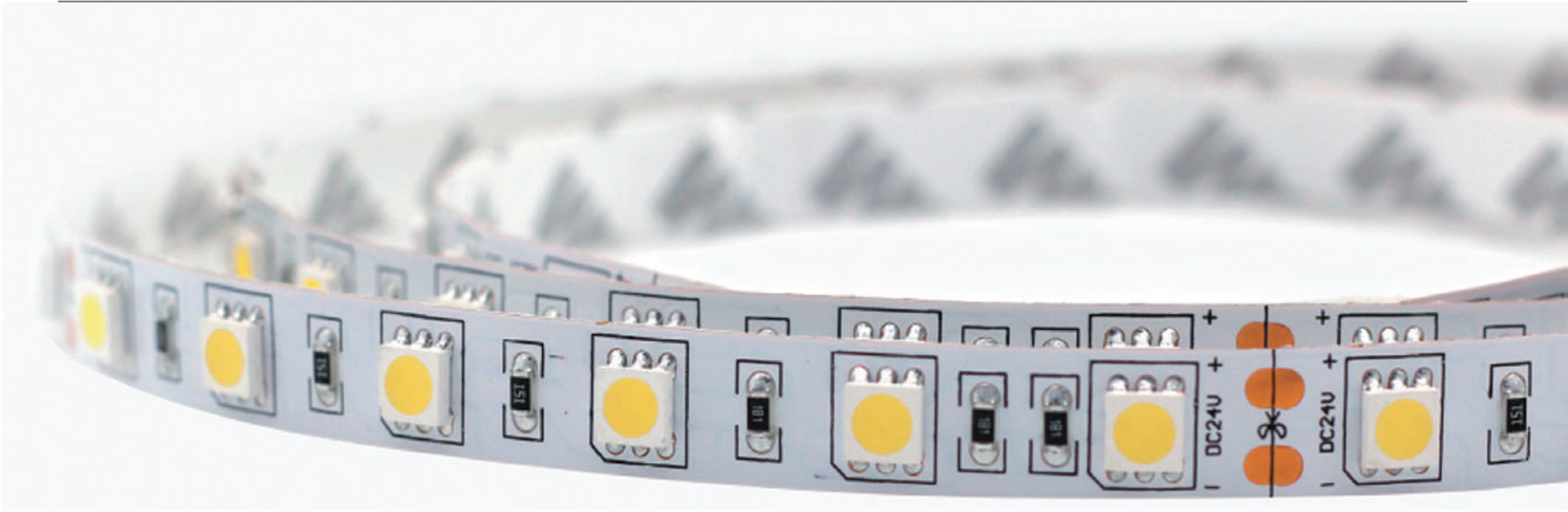
Medium luminosity flexible strips, which are ideal for ambience lighting or for using with furniture, shelving, cornices, etc. We can achieve a good dot free effect with led profiles with medium and large depths, such as our Roma and Berlin models, or similar.

We would like to highlight our VIZCAYA model which offers an excellent relation between Lumens/Watts and with just over 10W gives the same lighting as conventional strips with 14.4W/m. It also incorporates a current stabiliser which allows us to install up to 15m continuously without hardly any tension drop. It is also the only strip in this section which offers our exclusive watertight system, waterproof DUO IP67.
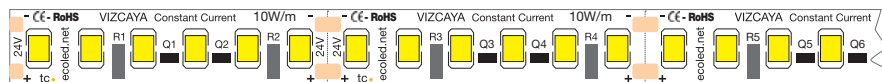


**ecoled VIZCAYA "PRO"**

Medium luminosity flexible strip, current stabiliser, 24V, IP67 waterproof DUO. 10mm PCB.
Can be cut every 6 leds.
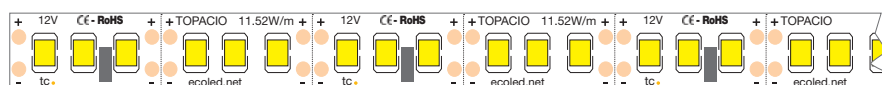


**ecoled TOPACIO "BASIC"**

Medium luminosity flexible strip, 12V, IP20. 10mm PCB. Can be cut every 3 leds.
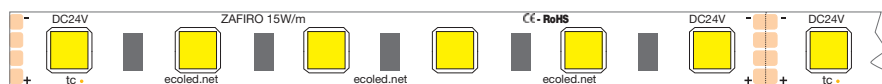


**ecoled ZAFIRO "BASIC"**

Medium luminosity flexible strip, 24V, IP65. 10mm PCB. Can be cut every 6 leds.

CE  RoHS COMPLIANT

## ZAFIRO



| Ref: 31.021 | 7800ºK |
| Ref: 31.022 | 4000ºK |
| Ref: 31.023 | 2800ºK |

Single-coloured flexible strip **BASIC**
IP65 with 60 leds/metre 5050SMD.
Requires use with led profile to permit dissipation.
**10mm PCB.**
Daily recommended use: 12h
Maximum connection in open circuit: 5m
Maximum connection in closed circuit: 10m

| Power (W) | 15W/m |
|---|---|
| Voltage (V) | 24V |
| Led type | SMD5050 |
| Lumens (7800ºK) | 1300 Lm/m |
| Lumens (4000ºK) | 1200 Lm/m |
| Lumens (2800ºK)1 | 1100 Lm/m |
| Light emission | 120º |
| Waterproofing | IP65 |
| Nº leds/m | 60 |
| Measurements | 5000x10x4mm |
| Cuttable | every 100mm |
| PCB | 10mm |
| Working temperature | -20ºC / +40ºC |
| Apt for | indoor / outdoor |
| Packaging | 1 roll/5m |
| Guarantee | 2 years |

## TOPACIO



| Ref: 30.013 | 6000ºK |
| Ref: 30.014 | 2800ºK |

Single-coloured flexible strip **BASIC**
IP20 with 144 leds/metre 3528SMD.
Requires use with led profile to permit dissipation.
**10mm PCB.**
Daily recommended use: 12h
Maximum connection in open circuit: 5m
Maximum connection in closed circuit: 10m

| Power (W) | 11.52W/m |
|---|---|
| Voltage (V) | 12V |
| Led type | SMD3528 |
| Lumens (6000ºK) | 864 Lm/m |
| Lumens (2800ºK) | 682 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 144 |
| Measurements | 5000x10x4mm |
| Cuttable | every 20mm |
| PCB | 10mm |
| Working temperature | -20ºC / +40ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 2 years |

## VIZCAYA
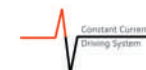


| Ref: 33.020 | 6500ºK |
| Ref: 33.021 | 4000ºK |
| Ref: 33.022 | 3000ºK |
| Ref: 33.023 | 2800ºK |

Single-coloured flexible strip **PRO Waterproof DUO** IP67 with 144 leds/metre 3528SMD.
Requires use with led profile to permit dissipation.
**10mm PCB.**
**Current stabiliser.**
Daily recommended use: 18h
Maximum connection in open circuit: 10m
Maximum connection in closed circuit: 20m

| Power (W) | 10W/m |
|---|---|
| Voltage (V) | 24V |
| Led type | SMD3528 |
| Lumens (6500ºK) | 1100 Lm/m |
| Lumens (4000ºK) | 980 Lm/m |
| Lumens (3000ºK) | 960 Lm/m |
| Lumens (2800ºK) | 910 Lm/m |
| Light emission | 120º |
| Waterproofing | IP67 "DUO" |
| Nº leds/m | 144 |
| Measurements | 5000x10x4mm |
| Cuttable | every 42mm |
| PCB | 10mm |
| Working temperature | -20ºC / +40ºC |
| Apt for | indoor / outdoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

CE RoHS COMPLIANT

- Photometric curves and IES & LDT files (for DIAL**ux** and **RE**LUX), can be carried out in our laboratory and available on request.

High luminosity flexible strip with a high density of leds which permits a dot free effect in the opal or frosted cover, even when we use the shallower led profiles, Milano, Frankfurt or similar.



ecoled BARCELONA "PRO"

High luminosity flexible led strip, 12V, IP20, 10mm PCB. It can be cut every 3 leds.
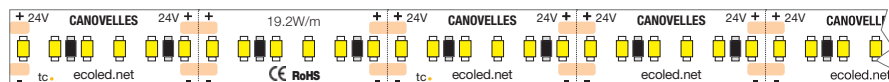


ecoled CANOVELLES "PRO"

High luminosity flexible led strip, 24V, IP67 waterproof DUO, 10mm PCB. It can be cut every 6 leds.
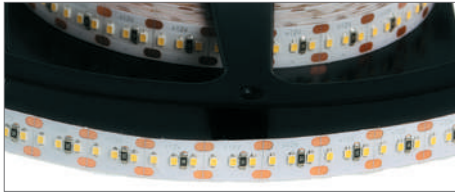
$C\,\epsilon$

## BARCELONA



Ref: 32.001          6500ºK
Ref: 32.002          4000ºK
Ref: 32.003          3000ºK

Single-coloured flexible strip **PRO**
IP20 with 240 leds/metre 2216SMD.
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**10mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 3m
Maximum connection in closed circuit: 6m

| Power (W) | 19.2W/m |
|---|---|
| Voltage (V) | 12V |
| Led type | SMD2216 |
| Lumens (6500ºK) | 1600 Lm/m |
| Lumens (4000ºK) | 1400 Lm/m |
| Lumens (3000ºK) | 1200 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 240 |
| Measurements | 5000x10x1.2mm |
| Cuttable | every 12.5mm |
| PCB | 10mm |
| Working temperature | -20ºC / +40ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

## CANOVELLES
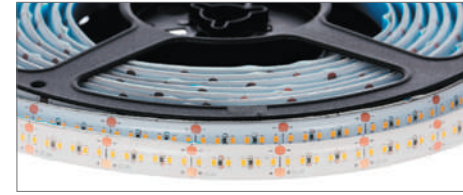


Ref: 33.024          6000ºK
Ref: 33.025          4000ºK
Ref: 33.026          2800ºK

Single-coloured flexible strip **PRO Waterproof**
**DUO** IP67 with 240 leds/metre 2216SMD.
**Heat dissipation tape included.**
**10mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 3m
Maximum connection in closed circuit: 6m

| Power (W) | 19.2W/m |
|---|---|
| Voltage (V) | 24V |
| Led type | SMD2216 |
| Lumens (6000ºK) | 1600 Lm/m |
| Lumens (4000ºK) | 1400 Lm/m |
| Lumens (3000ºK) | 1200 Lm/m |
| Light emission | 120º |
| Waterproofing | IP67 "DUO" |
| Nº leds/m | 240 |
| Measurements | 5000x10x3mm |
| Cuttable | every 25mm |
| PCB | 10mm |
| Working temperature | -20ºC / +40ºC |
| Apt for | indoor / outdoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

CE  RoHS COMPLIANT

- Photometric curves and IES & LDT files (for DIAL**ux** and **RE**LUX), can be carried out in our laboratory and available on request.
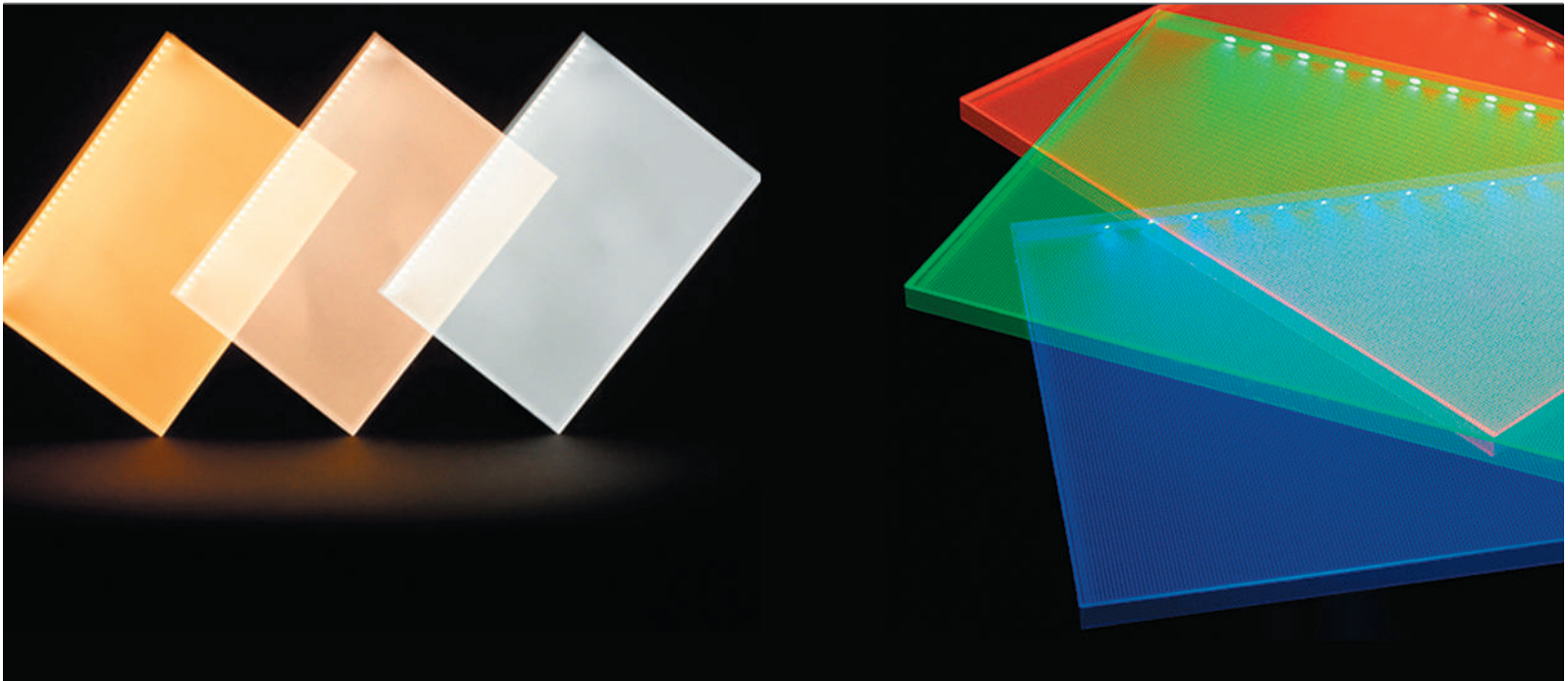
Flexible strips with widths of only 4-5-6mm. These are specially indicated for illuminating the sides of optic methacrylate sheets similar to V-Cutting and Dotting. These are used in the manufacturing of luminous signs, extra thin luminaires, ceiling panels and in general commercial lighting and furniture. They are also highly recommended for using with narrow led profiles, such as our Detroit model (see page 62).

Due to the elevated quantity of dots and high luminosity in the single-coloured led models, they are very useful in conventional profiles as the dots are well diffused in the vast majority of the shallow models.



High luminosity flexible led strip, 24V, IP20, 5mm PCB. It can be cut every 8 leds.

ecoled GRANADA "PRO"

**OSRAM** LED
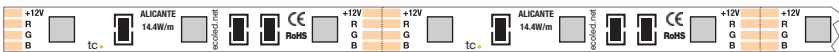


Medium luminosity flexible led strip, RGB, 12V, IP20, 6mm PCB. It can be cut every 3 leds.

ecoled ALICANTE RGB "PRO"



Medium luminosity flexible led strip, 12V, IP20, 5mm PCB. It can be cut every 4 leds.

ecoled CIES "PRO"

CE RoHS COMPLIANT

## CIES



Ref: 32.004     6000ºK
Ref: 32.005     4000ºK
Ref: 32.006     3000ºK
Ref: 32.007     red
Ref: 32.008     green
Ref: 32.009     blue

Single-coloured flexible strip **PRO**
IP20 with 198 leds/metre 2110SMD.
Requires use with led profile to permit dissipation.
**5mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 3m
Maximum connection in closed circuit: 6m

| Power (W) | 10W/m |
|---|---|
| Voltage (V) | 12V |
| Led type | SMD2110 |
| Lumens (6000ºK) | 1200 Lm/m |
| Lumens (4000ºK) | 1150 Lm/m |
| Lumens (3000ºK) | 1100 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 198 |
| Measurements | 5000x5x1.2mm |
| Cuttable* | every 15mm |
| PCB | 5mm |
| Working temperature | -40ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

* In red colour every 20mm

## ALICANTE RGB



Ref: 32.010            RGB

Flexible led strip **RGB "PRO"**
IP20 with 198 leds/metre 3535SMD.
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**6mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 2.5m
Maximum connection in closed circuit: 5m

| Power (W) | 14.4W/m |
|---|---|
| Voltage (V) | 12V |
| Led type | SMD3535 |
| Lumens (blanco) | 400 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 60 |
| Measurements | 5000x6x3mm |
| Cuttable | every 50mm |
| PCB | 6mm |
| Working temperature | -20ºC / +40ºC |
| Secuencer | not included |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

## GRANADA  OSRAM LED



Ref: 33.027     6500ºK
Ref: 33.028     4000ºK
Ref: 33.029     2700ºK

Single-coloured flexible led strip **"PRO"**
IP20 with 128 leds/metre 2835SMD.
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**5mm PCB.**
**CRI >80.**
Daily recommended use: 18h
Maximum connection in open circuit: 5m
Maximum connection in closed circuit: 10m

| Power (W) | 21W/m |
|---|---|
| Voltage (V) | 24V |
| Led type | SMD2835 |
| Lumens (6500ºK) | 3150 Lm/m |
| Lumens (4000ºK) | 3000 Lm/m |
| Lumens (2700ºK) | 2850 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 128 |
| Measurements | 5000x5x1.1mm |
| Cuttable | every 62.5mm (8 leds) |
| PCB | 5mm |
| Working temperature | -20ºC / +40ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

CE  RoHS COMPLIANT

- Photometric curves and IES & LDT files (for DIAL**ux** and **RE**LUX), can be carried out in our laboratory and available on request.

Chicago led profile

Our flexible led strips for SIDE LIGHTING are different from the other ones in this catalogue as they offer side illumination instead of front lighting and can be curved in an "S" shape.

These are specially suitable for very narrow led profiles, such as our Chicago (see page 58) and Dallas (see page 76). They are also ideal for corporate letters and commercial furnishings/displays where we need to bend the led strips.
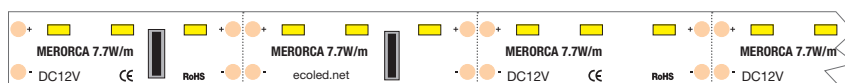
ecoled MENORCA "PRO"

Medium luminosity flexible led strip, 12V, IP67 waterproof DUO, 5mm PCB. It can be cut every 3 leds.

ecoled GETAFE "PRO"

Medium luminosity flexible led strip 12V, IP20, 6mm PCB. It can be cut every 3 leds.
Ideal for use with our Chicago and Dallas led profiles .
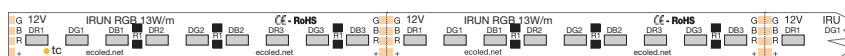
ecoled IRUN RGB "PRO"

Medium luminosity RGB flexible led strip (1 colour per led), 12V, IP20, 6mm PCB. It can be cut every 9 leds.
Ideal for use with our led profiles Chicago and Dallas.

## MENORCA

| Ref: 32.011 | 5500ºK |
| Ref: 32.012 | 4000ºK |
| Ref: 32.013 | 2800ºK |

Single-coloured flexible strip **"PRO"**
IP67 with 96 leds/metre 3014SMD.
**Side lighting flexible led strip.**
**5mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 7.5m
Maximum connection in closed circuit: 15m

| Power (W) | 7.7W/m |
|---|---|
| Voltage (V) | 12V |
| Led type | SMD3014 |
| Lumens (5500ºK) | 600 Lm/m |
| Lumens (4000ºK) | 550 Lm/m |
| Lumens (2800ºK) | 500 Lm/m |
| Light emission | 120º |
| Waterproofing | IP67 |
| Nº leds/m | 96 |
| Measurements | 5000x5x10mm |
| Cuttable | every 31mm |
| PCB | 10mm |
| Working temperature | -20ºC / +40ºC |
| Apt for | indoor / outdoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

## GETAFE

| Ref: 32.014 | 6000ºK |
| Ref: 32.015 | 4000ºK |
| Ref: 32.016 | 2800ºK |

Single-coloured flexible strip **"PRO"**
IP20 with 120 leds/metre 3014SMD.
Requires use with led profile to permit dissipation.
**Side lighting flexible led strip.**
**6mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 7.5m
Maximum connection in closed circuit: 15m

| Power (W) | 10W/m |
|---|---|
| Voltage (V) | 12V |
| Led type | SMD3014 |
| Lumens (6000ºK) | 953 Lm/m |
| Lumens (4000ºK) | 946 Lm/m |
| Lumens (2800ºK) | 940 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 120 |
| Measurements | 5000x6x1.8mm |
| Cuttable | every 25mm |
| PCB | 6mm |
| Working temperature | -25ºC / +45ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

## IRUN RGB

| Ref: 32.017 | RGB |

**RGB** flexible led strip **"PRO"**
IP20 with 180 leds/metre 3014SMD.
Requires use with led profile to permit dissipation.
**Side lighting flexible led strip.**
**6mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 4m
Maximum connection in closed circuit: 8m

| Power (W) | 13W/m |
|---|---|
| Voltage (V) | 12V |
| Led type | SMD3014 |
| Lumens (white) | 400 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 180 |
| Measurements | 5000x6x1.6mm |
| Cuttable | every 50mm (9 leds) |
| PCB | 6mm |
| Working temperature | -20ºC / +40ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

CE RoHS COMPLIANT

- Photometric curves and IES & LDT files (for DIAL**ux** and **RE**LUX), can be carried out in our laboratory and available on request.
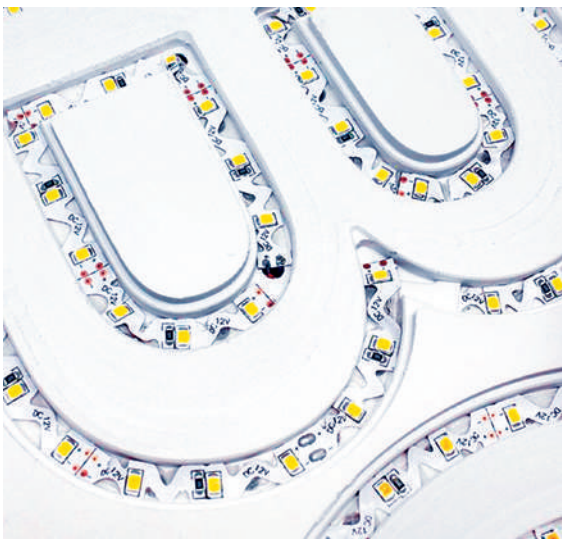
These flexible led strips are die-cut in ZIG-ZAG and this allows us to bend the PCB to achieve right angles, curves and geometrical shapes. They are ideal for corporate letters and for commercial furnishings, where we need to deal with irregular shapes.

Our AVILA model has undergone a waterproofing process called "nanocoating" which offers an IP54 and is covered in a very fine layer of plastic which is practically invisible and protects the flexible strip from humidity.



ecoled AVILA "PRO"

High luminosity flexible led strip with PCB in ZIG ZAG (maximum light power in this type of led).
12V, IP54, 6mm PCB. It can be cut every 3 leds.



ecoled JEREZ RGB "PRO"

Medium luminosity flexible RGB led strip with PCB in ZIG ZAG, 12V, IP20, 8.5mm PCB. It can be cut every 3 leds.

## AVILA

| Ref: 32.018 | 6000ºK |
| Ref: 32.019 | 4400ºK |
| Ref: 32.020 | 3000ºK |
| Ref: 32.021 | blue |
| Ref: 32.022 | red |
| Ref: 32.023 | green |
| Ref: 32.024 | amber |

Single-coloured flexible led strip **PRO**
IP54 **nanocoating** with 60 leds/metre 2835SMD.
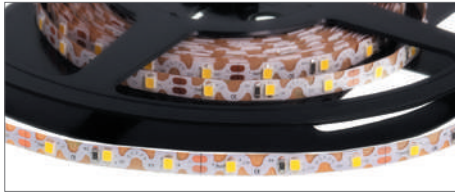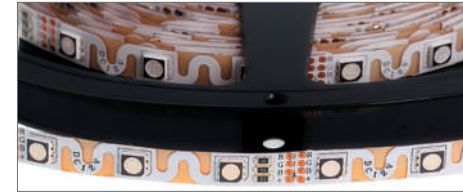Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**6mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 2.5m
Maximum connection in closed circuit: 5m

| Power (W) | 12W/m |
|---|---|
| Voltage (V) | 12V |
| Led type | SMD2835 |
| Lumens (6000ºK) | 1100 Lm/m |
| Lumens (4400ºK) | 1000 Lm/m |
| Lumens (3000ºK) | 920 Lm/m |
| Light emission | 120º |
| Waterproofing | IP54 |
| Nº leds/m | 60 |
| Measurements | 5000x6x3mm |
| Cuttable | every 50mm |
| PCB | 6mm |
| Working temperature | -20ºC / +40ºC |
| Apt for | indoor / outdoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

## JEREZ RGB

| Ref: 32.028 | RGB |

**RGB** flexible strip **PRO**
IP20 with 48 leds/metre 5050SMD.
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**10mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 3.5m
Maximum connection in closed circuit: 7m

| Power (W) | 11.52W/m |
|---|---|
| Voltage (V) | 12V |
| Led type | SMD5050 |
| Lumens (white) | 400 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 48 |
| Measurements | 5000x8.5x1.8mm |
| Cuttable | every 60mm |
| PCB | 8.5mm |
| Working temperature | -20ºC / +40ºC |
| Sequencer | not included |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

**PCB ZIG-ZAG**

6/10mm

- Photometric curves and IES & LDT files (for DIAL**ux** and **RE**LUX), can be carried out in our laboratory and available on request.

CE RoHS COMPLIANT
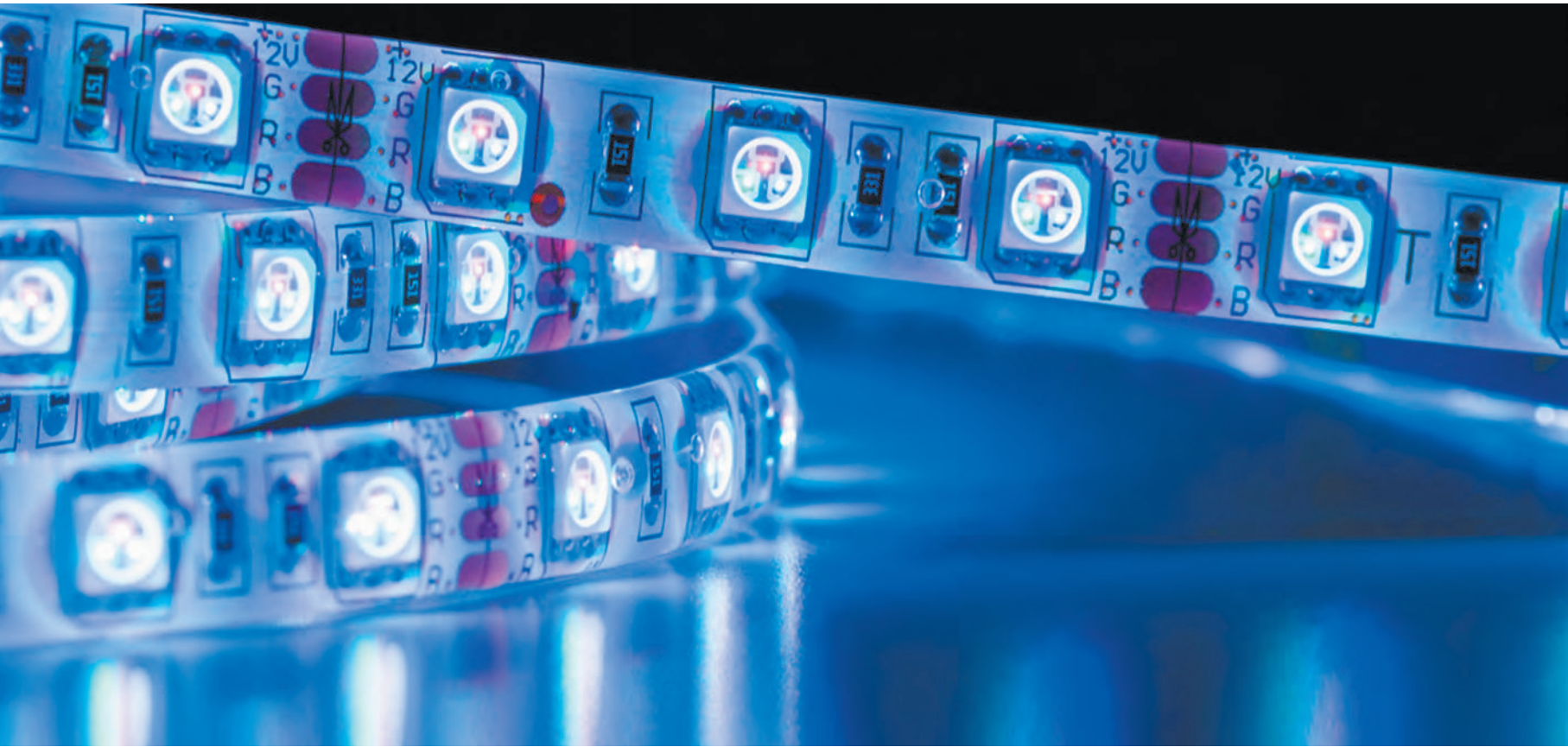
RGB flexible led strips (with 3 chips in the same diode). We can control the colour by means of a controller or sequencer. All the leds in the RGB flexible led strip display the same colour at the same time.
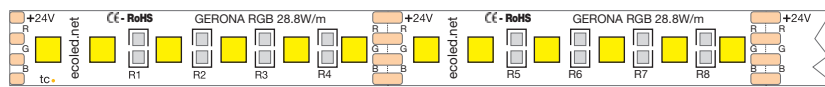


**ecoled GERONA RGB "PRO"**

Very high luminosity RGB flexible led strip, 24V, IP20, 10mm PCB. It can be cut every 6 leds.
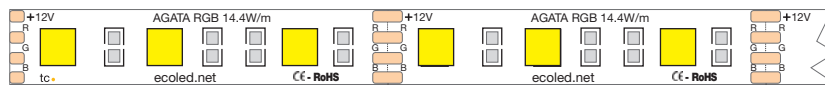


**ecoled AGATA RGB "BASIC"**

Medium luminosity RGB flexible led strip, 12V, IP65, 10mm PCB. It can be cut every 3 leds.
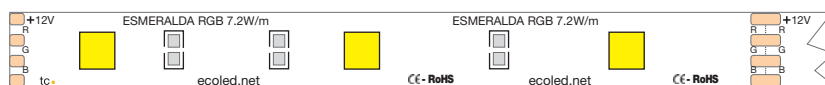


**ecoled ESMERALDA RGB "BASIC"**

Low luminosity RGB flexible led strip, 12V, IP65, 10mm PCB. It can be cut every 3 leds.

## ESMERALDA RGB

Ref: 30.015          RGB

**RGB** flexible led strip **"BASIC"**
IP65 with 30 leds/metre 5050SMD.
**10 mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 7.5m
Maximum connection in closed circuit: 15m

| Power (W) | 7.2W/m |
|---|---|
| Voltage (V) | 12V |
| Led type | SMD5050 |
| Lumens (white) | 221 Lm/m |
| Light emission | 120º |
| Waterproofing | IP65 |
| Nº leds/m | 30 |
| Measurements | 5000x10x4mm |
| Cuttable | every 100mm |
| PCB | 10mm |
| Working temperature | -20ºC / +40ºC |
| Sequencer | not included |
| Apt for | indoor / outdoor |
| Packaging | 1 roll/5m |
| Guarantee | 2 years |

## AGATA RGB

Ref: 30.016          RGB

**RGB** flexible led strip **"BASIC"**
IP65 with 60 leds/metre 5050SMD.
Requires use with led profile to permit dissipation.
**10 mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 5m
Maximum connection in closed circuit: 10m

| Power (W) | 14.4W/m |
|---|---|
| Voltage (V) | 12V |
| Led type | SMD5050 |
| Lumens (white) | 350 Lm/m |
| Light emission | 120º |
| Waterproofing | IP65 |
| Nº leds/m | 60 |
| Measurements | 5000x10x4mm |
| Cuttable | every 50mm |
| PCB | 10mm |
| Working temperature | -20ºC / +45ºC |
| Sequencer | not included |
| Apt for | indoor / outdoor |
| Packaging | 1 roll/5m |
| Guarantee | 2 years |

## GERONA RGB

Ref: 33.030          RGB

**RGB** flexible led strip **"PRO"**
IP20 with 120 leds/metre 3535SMD.
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**10 mm PCB.**
**High power RGB led strip.**
Daily recommended use: 18h
Maximum connection in open circuit: 4m
Maximum connection in closed circuit: 8m

| Power (W) | 28.8W/m |
|---|---|
| Voltage (V) | 24V |
| Led type | SMD3535 |
| Lumens (white) | 800 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 120 |
| Measurements | 5000x10x3mm |
| Cuttable | every 50mm |
| PCB | 10mm |
| Working temperature | -20ºC / +40ºC |
| Sequencer | not included |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

CE RoHS COMPLIANT

- Photometric curves and IES & LDT files (for DIAL**ux** and **RE**LUX), can be carried out in our laboratory and available on request.

RGB+W high power flexible led strip which combines in one housing a red-green-blue chip along with warm white. We can achieve a wider range of colours than with a normal RGB led (a more intense white and also coloured degradation to offer pastel tones). It comes with heat dissipation tape.

On pages 314 & 315 you can also see controllers and amplifiers for this product.



ecoled MARBELLA RGB+3000ºK "PRO"
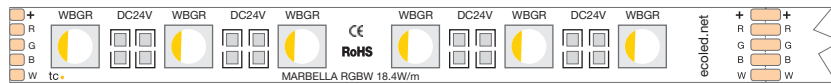


Very high luminosity RGB+W flexible led strip, 24V, IP20, 10mm PCB. It can be cut every 6 leds.

This is a flexible led strip with adjustable white, CCT (correlated colour temperature) with high luminosity which combines a cold white led with a warm white led.

The fact that both leds are together, means that the colour projected is a combination of both and if we use a suitable controller (see pages 314 & 315), it can vary from 3100°K to 6500°K.



ecoled NERJA CCT "PRO"
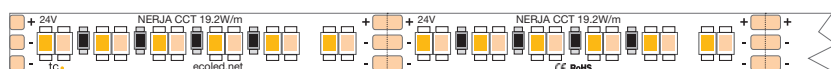
Very high CCT flexible led strip, 24V, IP20, 8mm PCB. It can be cut every 6 leds.

## MARBELLA RGB+3000ºK

Ref: 33.031          RGB+3000ºK

**RGB+W** flexible led strip **"PRO"**
IP20 with 60 leds/metre 5050SMD.
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**White colour (included in led chip)**
**10mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 6m
Maximum connection in closed circuit: 12m

| Power (W) | 18.4W/m |
|---|---|
| Voltage (V) | 24V |
| Led type | SMD5050 |
| Lumens (RGBW) | 800 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 60 |
| Measurements | 5000x10x1.8mm |
| Cuttable | every 100mm |
| PCB | 10mm |
| Working temperature | -20ºC / +40ºC |
| Sequencer | not included |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

## NERJA Warm white + Cool white

Ref: 33.032          3100ºK - 6500ºK

Flexible led strip **DUAL WW-CW "PRO"**
IP20 with 120 leds/metre 3527SMD.
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**Allows colour change (cool white, neutral and warm white).**
**8mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 7.5m
Maximum connection in closed circuit: 15m

| Power (W) | 19.2W/m |
|---|---|
| Voltage (V) | 24V |
| Led type | SMD3527 |
| Lumens (3100ºK - 6500ºK) | 1500 Lm/m |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 120 |
| Measurements | 5000x8x1.9mm |
| Cuttable | every 50mm |
| PCB | 8mm |
| Working temperature | -20ºC / +40ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

CE RoHS COMPLIANT

- Photometric curves and IES & LDT files (for DIAL**ux** and **RE**LUX), can be carried out in our laboratory and available on request.

Flexible led strips with a high CRI (Colour Rendering Index), which are specially indicated for the food industry: fruit, vegetables, meat/poultry and bakery products.

Compared with the R9-R14, they offer us greater values, whereby we achieve much more natural and realistic colours and therefore suggesting improved freshness and attractiveness of the exposed product.



**ecoled TREVELEZ "PRO"**

High luminosity flexible led strip, 24V, IP54 nanocoating, 10mm PCB. Ideal for the meat and poultry industry.
It can be cut every 8 leds.
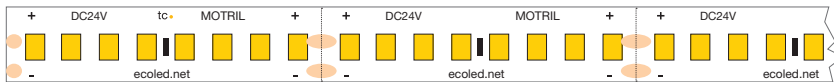


**ecoled MOTRIL "PRO"**

High luminosity flexible led strip, 24V, IP54 nanocoating, 10mm PCB. Ideal for the bread and bakery industry.
It can be cut every 8 leds.



**ecoled ANTEQUERA "PRO"**

High luminosity flexible led strip, 24V, IP54 nanocoating, 10mm PCB. Ideal for the fruit and vegetable industry.
It can be cut every 8 leds.

## TREVELEZ



Ref: 33.033          2100ºK

**Special for MEATS**

Single-coloured flexible strip **"PRO"**
IP54 **nanocoating** with 192 leds/metre 3528SMD.
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**10mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 5m
Maximum connection in closed circuit: 7m

| | |
|---|---|
| Power (W) | 20W/m |
| Voltage (V) | 24V |
| Led type | SMD3528 |
| Lumens $^{(2100ºK)}$ | 1600 Lm/m |
| Light emission | 120º |
| Waterproofing | IP54 |
| CRI | Ra>90 |
| Nº leds/m | 192 |
| Measurements | 5000x10x2.5mm |
| Cuttable | every 41.6mm |
| PCB | 10mm |
| Working temperature | -40ºC / +60ºC |
| Apt for | indoor/fridges |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |



Highlights the red colours and reduces the browning effect in the sectioned part.

## MOTRIL



Ref: 33.034          2500ºK

**Special for BAKERIES**

Single-coloured flexible strip **"PRO"**
IP54 **nanocoating** with 192 leds/metre 3528SMD.
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**10mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 5m
Maximum connection in closed circuit: 7m

| | |
|---|---|
| Power (W) | 20W/m |
| Voltage (V) | 24V |
| Led type | SMD3528 |
| Lumens $^{(2500ºK)}$ | 1800 Lm/m |
| Light emission | 120º |
| Waterproofing | IP54 |
| CRI | Ra>90 |
| Nº leds/m | 192 |
| Measurements | 5000x10x2.5mm |
| Cuttable | every 41.6mm |
| PCB | 10mm |
| Working temperature | -40ºC / +60ºC |
| Apt for | indoor/fridges |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |



Highlights the yellow and brown colours, with a golden touch.

## ANTEQUERA



Ref: 33.035          6000ºK

**Special for FRUIT and VEGETABLES**

Single-coloured flexible strip**"PRO"**
IP54 **nanocoating** with 192 leds/metre 3528SMD.
Requires use with led profile to permit dissipation.
**Heat dissipation tape included.**
**10mm PCB.**
Daily recommended use: 18h
Maximum connection in open circuit: 5m
Maximum connection in closed circuit: 7m

| | |
|---|---|
| Power (W) | 20W/m |
| Voltage (V) | 24V |
| Led type | SMD3528 |
| Lumens $^{(6000ºK)}$ | 2200 Lm/m |
| Light emission | 120º |
| Waterproofing | IP54 |
| CRI | Ra>90 |
| Nº leds/m | 192 |
| Measurements | 5000x10x2.5mm |
| Cuttable | every 41.6mm |
| PCB | 10mm |
| Working temperature | -40ºC / +60ºC |
| Apt for | indoor/fridges |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |



Highlights the cooler colours, giving a fresher appearance to the product.

CE  RoHS COMPLIANT

- Photometric curves and IES & LDT files (for DIAL**ux** and **RE**LUX), can be carried out in our laboratory and available on request.

# www.digitalled.net

by Luz Negra

Digital lighting is an intelligent way to personalise light in fine details and to be able to communicate by means of emotions and sensations. In order to go further afield with the digital lighting experience, Luz Negra has established a partnership with, **|/₀/| Proto**Pixel who are specialised in software and hardware design for digital lighting control.

Here at Luz Negra we are able to offer full support and assistance for any type of project related to digital lighting. We can work together, starting off with the initial concept and design and taking it through to the manufacturing of the luminaires or supports and also the calculations for the electrical connections and hardware.
We can even offer custom programming solutions which are completely personalised and which can be updated via internet no matter where the installation is located.

OVNEW Restaurant (Barcelona).
Iluminated with more than 100 Oslo luminaires with digital led . Design, control and installation made by Protopixel.
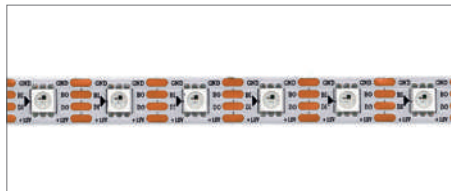
## FIJI RGB
"cuttable every 1 led"



Ref: 35.001                RGB

Flexible led strip with digital led in RGB **"PRO"** series, IP20 with 60 leds/metre and cuttable every led.
Requires use with led profile to permit dissipation.
**5mm PCB.**

| Power (W) | 11.5W/m |
|---|---|
| Voltage (V) | 5V |
| IC type | SK6812 |
| Lumens | 308 Lm/m |
| Led Control | led to led |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 60 Leds/m |
| Measurements | 5000x5x2.5mm |
| Cuttable | every 16.54mm |
| PCB | 5mm |
| Working temperature | -20ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

## HAWAI RGB
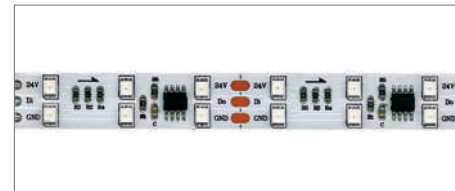"cuttable every 1 led"



Ref: 35.002                RGB

Flexible led strip with digital led in RGB **"PRO"** series, IP20 with 60 leds/metre and cuttable every led.
Requires use with led profile to permit dissipation.
**10mm PCB.**

| Power (W) | 14.4W/m |
|---|---|
| Voltage (V) | 12V |
| IC type | 2815 |
| Lumens | 438 Lm/m |
| Led Control | led to led |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 60 Leds/m |
| Measurements | 5000x10x2.5mm |
| Cuttable | every 16.8mm |
| PCB | 10mm |
| Working temperature | -20ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

## SEYCHELLES RGB
"cuttable every 6 led"



Ref: 35.003                RGB

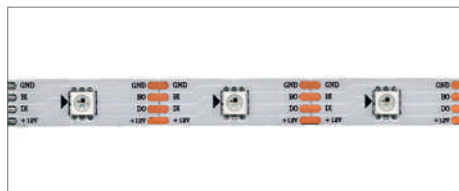Flexible led strip with digital led in RGB, **"PRO"** series IP20 with 120 leds/metre and cuttable every 6 leds.
Requires use with led profile to permit dissipation.
**12mm PCB.**

| Power (W) | 28.8W/m |
|---|---|
| Voltage (V) | 24V |
| IC type | 16703 |
| Lumens | 592 Lm/m |
| Led Control | every 6 leds |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 120 Leds/m |
| Measurements | 5000x12x2.5mm |
| Cuttable | every 50mm (6 leds) |
| PCB | 12mm |
| Working temperature | -20ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

CE  RoHS COMPLIANT

- Photometric curves and IES & LDT files (for DIAL**ux** and **RE**LUX), can be carried out in our laboratory and available on request.

## COZUMEL RGB
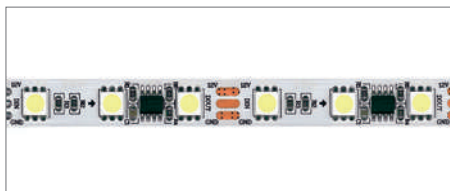### "cuttable every 1 led"

Ref: 35.004          RGB

Flexible led strip with digital led in RGB, **"PRO"** series IP20 with 30 leds/metre and cuttable every led.
Requires use with led profile to permit dissipation.
**10mm PCB.**
Maximum connection in open circuit: 18h

| Power (W) | 7.2W/m |
|---|---|
| Voltage (V) | 12V |
| IC type | 2815 |
| Lumens | 112 Lm/m |
| Led Control | led to led |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 30 Leds/m |
| Measurements | 5000x10x2.5mm |
| Cuttable | every 33.2mm |
| PCB | 10mm |
| Working temperature | -20ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

## BALI warm white
### "cuttable every 3 leds" - control led to led

Ref: 35.006          7.000ºK
Ref: 35.007          3.000ºK

Flexible led strip with warm white monochromatic digital led, **"PRO"** series, IP20 with 60 leds/metre and cuttable every 3 leds + led to led control.
Requires use with led profile to permit dissipation.
**10mm PCB.**
Maximum connection in open circuit: 18h.

| Power (W) | 14.4W/m |
|---|---|
| Voltage (V) | 12V |
| IC type | 2811 |
| Lumens(7000ºK) | 1000 Lm/m |
| Lumens(3000ºK) | 994 Lm/m |
| Led Control | led to led |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 60 Leds/m |
| Measurements | 5000x10x2.5mm |
| Cuttable | every 50mm (3 leds) |
| PCB | 10mm |
| Working temperature | -20ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

## MALDIVAS RGB+W
### "cuttable every 1 led"
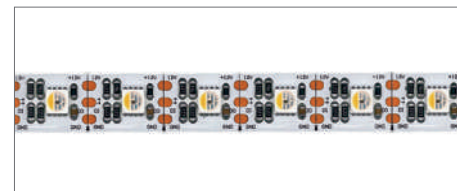
Ref: 35.008          RGB+W

Flexible led strip with digital led in RGBW, **"PRO"** series IP20 with 60 leds/metre and cuttable every led.
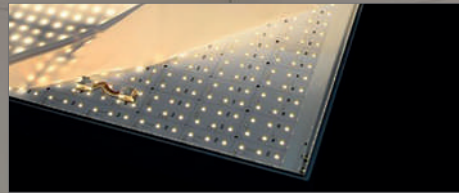Requires use with led profile to permit dissipation.
**10mm PCB.**
Maximum connection in open circuit: 18h.

| Power (W) | 20W/m |
|---|---|
| Voltage (V) | 12V |
| IC type | 6812 |
| Lumens | 500 Lm/m |
| Led Control | led to led |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 60 Leds/m |
| Measurements | 5000x10x2.5mm |
| Cuttable | every 16.8mm |
| PCB | 10mm |
| Working temperature | -20ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 roll/5m |
| Guarantee | 3 years |

CE   RoHS COMPLIANT

- Photometric curves and IES & LDT files (for DIAL**ux** and **RE**LUX), can be carried out in our laboratory and available on request.

OVNEW restaurant.
Luminaires with Oslo led profile.
Cortesy of Protopixel.

| | |
|---|---|
| Power (W) | 18W |
| Voltage (V) | 24V |
| Led type | 5050 |
| Lumens | 665 Lm |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 162 Leds/m |
| Measurements | 480x240x5mm |
| Cuttable | it is cuttable basing on the cutting line |
| PCB | 480x240 |
| Working temperature | -25ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 unit |
| Guarantee | 2 years |

Ref: 46.001      RGB

Flexible RGB panel for indoor use (480x240mm) which can be cut in to 27 modules of 80x53mm (6 leds/ module). It is specially recommended for backlighting (luminaires and lightboxes).
It has fast connectors to put various panels together without welding.
We can connect up to 10 panels in series

 RGB FLEXIBLE PANEL
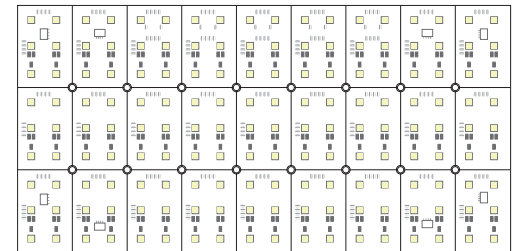




| | |
|---|---|
| Power (W) | 10W |
| Voltage (V) | 24V |
| Led type | 2835 |
| Lumens (3000ºK) | 978 Lm |
| Light emission | 120º |
| Waterproofing | IP20 |
| Nº leds/m | 288 Leds/m |
| Measurements | 480x240x5mm |
| Cuttable | it is cuttable basing on the cutting line |
| PCB | 480x240mm |
| Working temperature | -25ºC / +60ºC |
| Apt for | indoor |
| Packaging | 1 unit |
| Guarantee | 2 years |

Ref: 46.002      3000ºK-6000ºK

Flexible TUNABLE WHITE panel for indoor use (480x240mm) which can be cut in to 48 modules of 60x40mm, with 6 cold leds and 6 warn leds.
It is specially recommended for backlighting (luminaires and lightboxes).
It has fast connectors to put various panels together without welding.
We can connect up to 10 panels in series.

TUNABLE WHITE FLEXIBLE PANEL