



- SPIRALE IS MADE WITH INDEPENDENT STRUCTURE TO ENCOURAGE SLIDING BETWEEN CIRCUITS AND SILICONE TUBE DURING BEND.

Code	Model		Color
HTL 000455	HT9E-120W24		White
HTL 000456	HT9E-120NW24		Natural White
HTL 000457	HT9E-120WW24		Warm White
HTL 000458	HT9E-120R24		Red
HTL 000459	HT9E-120G24		Green
HTL 000460	HT9E-120G24		Blue

TECHNICAL PARAMETERS

Operating Voltage	DC 24V (±1V)
Wattage	9,6 W/m
Lenght	5.000 mm.
LEDs quantity	120 LED/m.
Minimum length of a cuttable segment	50 mm.
IP protection (only if the product has not been cut)	IP67
Operating temperature range	-30 C° ~ +50 C°
Storage temperature range	-0 C° ~ +40 C°
Storage enviroment humidity	RH < 60%
Storage enviroment humidity	Class III
IEC protection class (with SELV power supply)	250 mm.
Wires lenght	180°
Viewing angle	50.000h (L70)
Life time (TA 50 °C , VDC 12,0 V.)	1
Pcs per bag	3 Years

PRODUCT DESCRIPTION

SPIRALE is a flexible LED tube made of opal silicone, designed for homogeneous linear lighting applications.

It can be fixed with clips or inserted on an aluminum profile.

The shape and dimensions make it very robust and reliable.

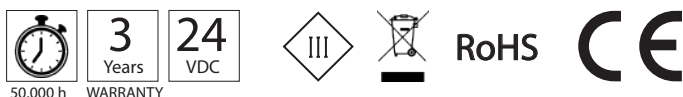
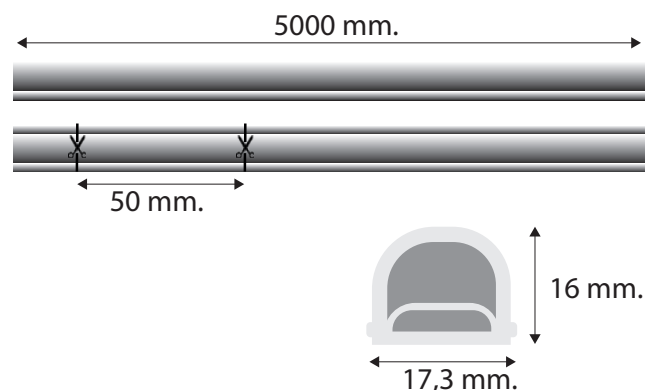
It can be cut and sealed with special opal caps which become bright.

APPLICATIONS

- Linear lighting
- luminous contours
- Architectural applications.
- Decorative applications

FEATURES

- Minimum cutting distance: 50 mm.
- Opal silicone.
- Flexible tubular silicone structure.
- Silicone tube independent from the LED strip.
- Sideways bendable structure.
- Opal silicone caps that become luminous.
- UV resistant anti-yellowing silicone.
- Wires with silicone insulation to adhere perfectly to the silicone sealing gel



GENERAL INFORMATIONS

Model	Nominal voltage	Voltage limits	Voltage limits in case of			
			polarity inversion	LED color	Luminous flux	CRI
HT9E-120W24	24 VDC	23.....25 VDC	25 VDC	Bianco 6000-6500 k	755 Lm/m	> 80
HT9E-120NW24	24 VDC	23.....25 VDC	25 VDC	Bianco 4000-4500 k	740 Lm/m	> 80
HT9E-120WW24	24 VDC	23.....25 VDC	25 VDC	Bianco 2700-3200 k	709 Lm/m	> 80
HT9E-120R24	24 VDC	23.....25 VDC	25 VDC	Rosso 620 - 630 nm.	280 Lm/m	
HT9E-120G24	24 VDC	23.....25 VDC	25 VDC	Verde 520 - 525 nm.	550 Lm/m	
HT9E-120G24	24 VDC	23.....25 VDC	25 VDC	Blu 463 - 475 nm.	180 Lm/m	

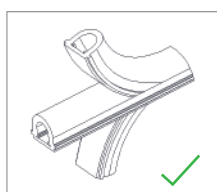
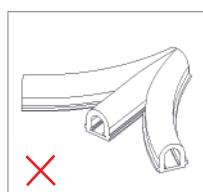
Handling- The silicone structure is unglued from the internal strip, it is to favor slippage between the circuit and silicone structure during bending.

Cut - The product can be cut every 50 mm. and headed with special opal caps that become luminous.
Aluminium fixing clips and aluminium profile 2000mm. are available as optionals.

Packaging - The product is supplied wrapped in a support roll and packaged in an antistatic bag.

BENDING

The minimum bending diameter is 100 mm. and how to bend the product is showed in below draws.






IP67


⚠ WARNING!! The product is supplied without the caps at the 2 ends, this to allow the user to choose the suitable cap among the 5 available models, and perform the gluing operation following the instructions.

Therefore the degree of protection IP67 refers to the product having both ends of caps suitably glued, otherwise the resulting degree of protection is IP00.

This product comply with the following European Standard: (Click on Icons to download documentation)

 EMC - Directive 2014/30/EU
EN 55015:2019/A11:2020
EN 61000-3-2:2019/A1:2021
EN 61000-3-3:2013/A1:2019
EN 61547:2009

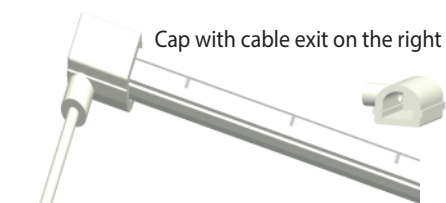
 Safety - LED modules for general lighting
EN 62031:2020
 IP protection
IEC 60598-1:2020 Section 9
IEC 60529:1989+A1:1999+A2:2013

 RoHS
Directive 2011/65/EU
Directive 2015/863 EU

ACCESSORIES

Model	Code	Description
CAP ONDA RIGHT	HTL 000499	Cap with cable exit on the right
CAP ONDA LEFT	HTL 000500	Cap with cable exit on the left
CAP ONDA BOTTOM	HTL 000501	Cap with cable exit from below
CAP ONDA STRAIGHT	HTL 000502	Cap with streight cable exit
CAP ONDA END CAP	HTL 000503	End cap
CABLE	HTL 000496	Lenght 250 mm. (+25 , +25 wires)
STEEL CLIP	HTL 000468	Steel CLIP
ALUMINIUM BAR FOR ONDA	HTL 000568	Aluminium profile, lenght 2000 mm.
SILICONE GEL	HTL 000497	Silicone Gel 310 ml.
PRIMER	HTL 000512	Primer for silicone gel

Cap with cable exit on the right



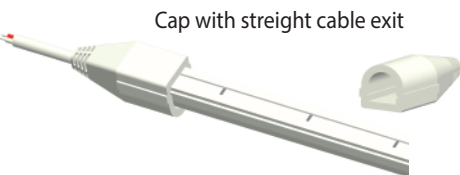
Cap with cable exit on the left



Cap with cable exit from below



Cap with streight cable exit



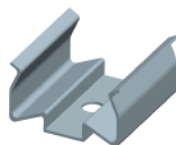
End Cap



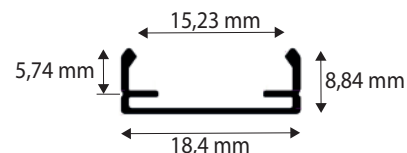
Cable, 250 mm lenght.



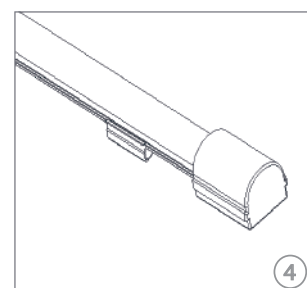
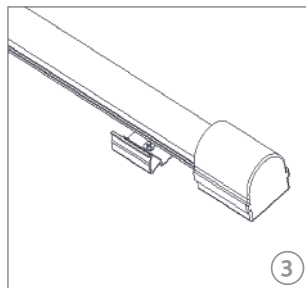
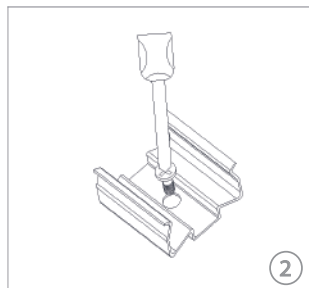
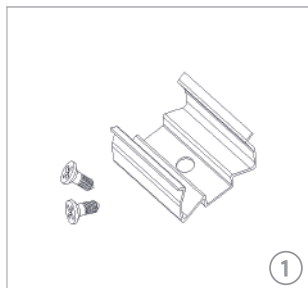
Steel Clip



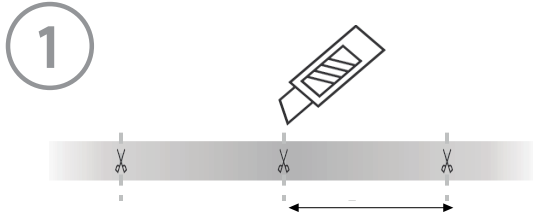
Aluminium profile, 2000mm lenght



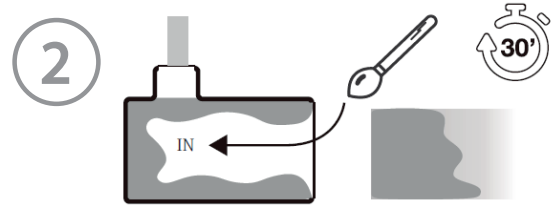
FIXING



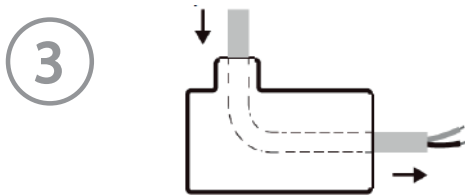
SEGMENTATION AND GLUING OF THE CAPS



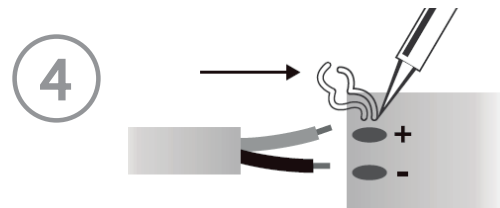
The cut must be made in correspondence with the marker line that transpires from the side strip of the product, using a sharp cutter and sliding it as if for slicing.



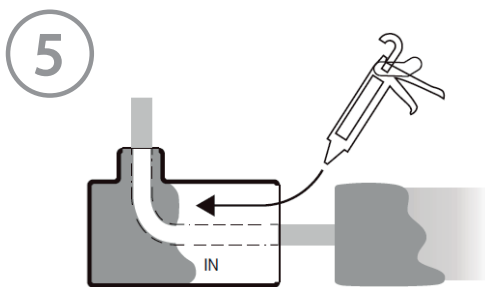
Spread the primer on the outside of the tube and also inside the cap with a brush and wait 30 minutes for drying.



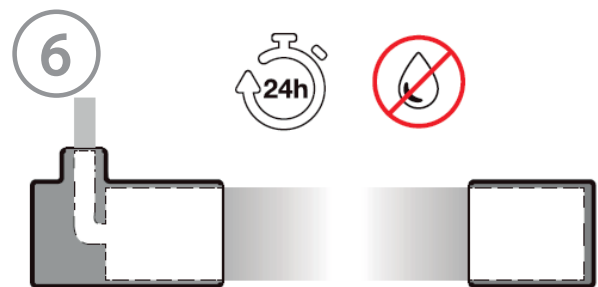
Insert the cable into the silicone Cap in the direction indicated by the arrows.



Weld the wires to the corresponding pads (+ and -).



Apply the silicone gel inside the cap in the right quantity, make sure to fill in the empty spaces and spread it also around the outer surface of the tube that will enter the cap.



Wait for the silicone gel to dry