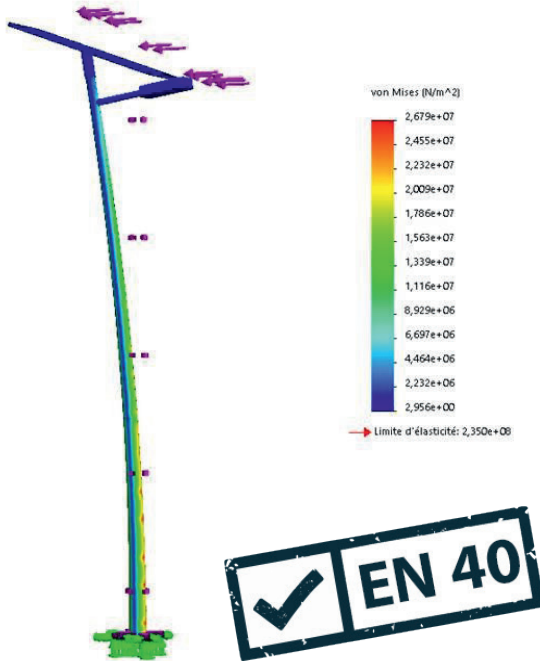


## OUR POLE WITHOUT VISIBLE WELD



Our mechanical studies realised at the start of the project enable us to set the technical characteristics of the pole and its concrete support according to EN 40 norm (public lighting support).

Novéa realises its calculation note in compliance with EN 40 and integrate the fatigue according to the EUROCODE 1991-1-4 part 2 (solar equipments sensitive to wind on lighting support).

So Novéa respect the technical recommendations of CTICM (Industrial Technical Centre of Mechanical Construction).

This technical approach allows us to realise a sustainable and safe installation.

## ERW METHOD FOR INVISIBLE WELD

The ERW method intervenes when the two sides of the preformed cone trunk are welded to constitute the pole.

It involves heating the edges of the two sides with high frequency electricity until merger temperature.

The sides will then be pressed with rollers to merge.

This welding without additional metal results invisible, for a high quality finish.

### STRONG POINTS



INVISIBLE WELD THANKS TO  
ERW METHOD



BEST QUALITY STEEL  
UNTIL S 355 AND WITH  
CHARACTERISTICS MEETING EN  
10025 REQUIREMENTS



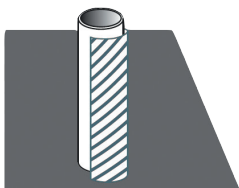
OPTIMISED PRODUCTION STEPS  
TO LIMIT CO2



CERTIFIED EN 40 TO ENSURE  
THE ROBUSTNESS OF THE  
PRODUCT

# POLES TREATMENTS

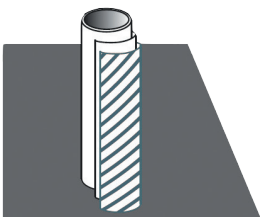
## STANDARD TREATMENTS



### Hot galvanisation

**All of our poles comply with this treatment.**

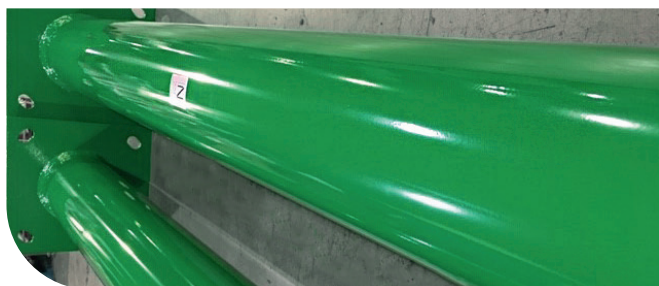
The pole is dived in a bath of Zinc which merges with steel and becomes a protective layer against light and medium corrosion. The thickness has to be minimum at 55 micrometres and reach on average 70 micrometres. This process respects ISO 1461 norm.



### Powder coating

A process with no solvent which consists of spraying a thermosetting powder painting and in baking it. It enables to protect the pole against bad weather and UV rays, and give effects (metallised, textured,...).

It complies with ISO 12944.



## SPECIFIC TREATMENTS

### Seashore treatment

This layer aims to reinforce the protection for areas with high and extreme corrosion risk.

It is realised by adding, before powder coating, an epoxy preparation of 80 micrometres and then baking it.

### Sublimation

**This sublimation enables to add a wood effect on the pole, for a natural finish.**

To add this finishing touch, a transfer film is applied on the pole, then heated between 180°C and 200°C. The texture reek of the painting, then the film is removed. The final texture is harmonious and offers an excellent robustness over time.

This finish is realised on Ragni Group site.

