

## OXYPLAST ZINC-RICH PRIMER ES312A162

### DESCRIPTION

**OXYPLAST ES312A162** is a zinc-rich primer based on a modified epoxy binder. This powder is developed as a part of a two-layer system, for application on shot-blasted steel.

### PROPERTIES OF THE POWDER

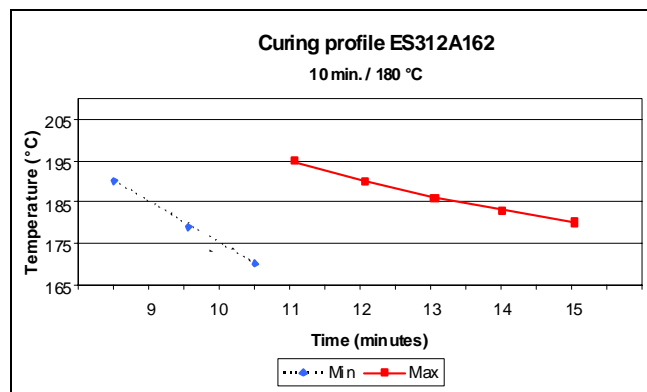
- **Density (g/cm<sup>3</sup>)** (DIN 55990/3) 1.78 ± 0.05
- **Colour** Dark-grey
- **Particle size distribution** Optimized for electrostatic application
- **Storage** Dry, max. 25 °C: at least 1 year
- **Application** Corona-chargeable / Film thickness: 50 - 90 µm
- **Curing schedule** 10 min. at 180 °C (metal temperature)



For optimal adhesion with the topcoat, it is very important to cure according to the described curing schedule. Although adhesion problems with the topcoat, when cured in direct stoved gas ovens, are unlikely to occur, we advise to reduce the curing time of this primer from 10 min. to 5-8 min. at 180 °C (metal temperature):

- o to 5 min. with a 10 min. / 180 °C curing topcoat
- o to 8 min. with a 10 min. / 150 °C curing topcoat

This initial incomplete curing of the primer has no negative influence on the corrosion resistance, because the crosslinking is further completed in the 2<sup>nd</sup> stage, while curing the topcoat.



### MECHANICAL PROPERTIES OF THE COATING

- **Substrate** Cold-rolled steel (0.8 mm), degreased
- **Curing schedule** 10 min. at 180 °C (metal temperature)
- **Layer thickness** (ISO 2808:1997) 70 ± 10 µm
- **Adhesion** (ISO 2409:2007) Gt = 0
- **Erichsen** (ISO 1520:1993) > 6 mm
- **Impact (reverse)** (ISO 6272:1993) > 80 kg.cm
- **Conical mandrel** (ISO 6860:1984) < 10 mm

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**ANTICORROSION  
PROPERTIES**

For an optimal adhesion and corrosion protection the correct pre-treatment must be applied.

Cold-rolled steel: Degreasing + shot blasting Sa 2½ (R<sub>a</sub> = min. 10 µm)

**Neutral salt spray test** (ASTM B 117-07)

Substrate: Cold-rolled steel, shot-blasted

Coating: Primer: ES312A162 (80 µm)

Topcoat: PE50/TR9010GL/92/180 (90 µm)

After 1000 h: No general blistering

Peeling off from the scratch: 1-2 mm

After 1500 h: No general blistering

Peeling off from the scratch: 2-3 mm

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*This information is given in good faith. A warranty, expressed or implied, cannot be supplied as results may vary depending on application conditions.*