

GENERAL FEATURES

Thermosetting powder with epoxy and polyester resins, containing special anticorrosive pigments based on zinc phosphates. The product present also a good sandability.

It forms a smooth hard film with good resistance to chemical agents, fuels, oils and mechanical damage. Qualisteelcoat approval for steel: PE-0066, PE-0069. Qualisteelcoat approval for HDGS: PE-0070, PE-0071. The further coating with a Top Coat is facilitated due to the presence of electrically conductive pigments inside the Primer.

APPLICATION

The product is used for anticorrosive protection of metal structures in general.

ADVISED CYCLES

Apply on sand blasted or chemically treated steel or HDGS, for Qualisteelcoat applications. It can be top-coated with Inver Architectural Class 1 Qualicoat approved products.

It gives also a good intercoat adhesion if it is top-coated with Inverpul Polyester, Epoxypolyester or Polyurethanic powder and 2K liquid enamel like Inverplast and Inverpur.

However the surface to be coated must be cleaned from oils, grease or flash rust.

The ESD version (electrostatic-dissipative) of the VALDE PRIME is formulated to make easier and homogeneous the application of the Top Coat when the primer is fully cured. This allows to overcoat pieces pretreated days before with the primer.

HANDLING AND STORAGE

Store at temperatures from 5°C and lower than 30°C with max 60%RH; higher temperatures and humidity may damage the product by causing undesired alterations or blobs.

Storage life in original package: 18 months.

TECHNICAL DATA

| Code | Int. Method | Range | Ref. Method |
|---------|-------------------------------------------|---------------|----------------------|
| P/CL092 | Calc.specific gravity(kg/l): | 1.528 - 1.591 | |
| P/CL120 | Non volatile content(w/w)(%) 3h at 105 °C | 100.0 - 100.0 | UNI EN ISO 3251 |
| P/CL125 | Non volatile content(v/v)(%) | 100.0 - 100.0 | |
| P/CL143 | 1µm Theor.spread.rate (m2/kg): | 629 - 654 | |
| P/CL210 | Water content (%): | 0.0 - 0.0 | |
| P/CC050 | Gloss 60° : | 15.0 - 25.0 | UNI EN ISO 2813:2014 |

WAYS OF APPLICATION

Apply with automatic or manual guns with negative terminal (60/80KV), with electrical protection level minimum IP54.

It is advised to apply the VALDE PRIME in layers with the thickness of 50 - 80 microns and to stove at 180°C for 15 minutes.

For stoving the VALDE PRIME it is possible to use the

following combinations of time and temperature (table 1):

| | |
|---------------|------------------------------------|
| 8-10 minutes | 200°C (temperature of the support) |
| 10-15 minutes | 190°C (temperature of the support) |
| 15-20 minutes | 180°C (temperature of the support) |

For complete stoving use the given indications in table 1.

After a preliminary plant test, the VALDE PRIME can be applied and green-cured (only partial curing / gelling) prior the application of the top-coat:

| | |
|---------------|------------------------------------|
| 15-40 minutes | 110°C (temperature of the support) |
| 12-30 minutes | 130°C (temperature of the support) |
| 10-25 minutes | 140°C (temperature of the support) |
| 8-20 minutes | 150°C (temperature of the support) |
| 6-15 minutes | 160°C (temperature of the support) |
| 3-5 minutes | 180°C (temperature of the support) |

For all of the top-coat smooth low bake products, it is possible to partial cure the VALDE PRIME, but for the final baking of the finishing product must be respected the combinations of time / temperature of the complete curing of the primer, as shown in table 1.

Exceptions are for fine texture, texture and liquid top-coats where the VALDE PRIME needs to be fully cured before the top-coating.

TECHNOLOGICAL FEATURES AND RESISTANCE TESTS

| | |
|------------------|--------------------------------|
| The support used | Sand blasted steel Sa 2½ grade |
| Thickness | 50 - 80 microns |
| Stoving | 15 minutes at 180°C |

The hardness test was carried out on sand blasted steel Sa 2½ after overpainting with 50-80 Micron of Inverpul Polyester Extra.

| Code | Int. Method | Range | Ref. Method |
|---------|------------------------------|----------------|------------------------------|
| P/CM040 | Erichsen cupping test (mm): | more than 3 | UNI EN ISO 1520 |
| P/CM050 | Direct impact test (cm.Kg): | more than 20 | ASTM D 2794; ISO 6272-2:2002 |
| P/CM051 | Reverse impact test(cm.kg): | more than 5 | ASTM D 2794; ISO 6272-2:2002 |
| P/CM095 | Crosscut adhesion (1mm)(GT): | 00 | UNI EN ISO 2409 |
| P/CM190 | Salt fog test : | 1000 hours la- | UNI ISO 9227 |

| Code | Int. Method | Range | Ref. Method |
|---------|------------------------------------------|-----------------------------------------------|------------------------|
| | | ter - indentation along the cross of 2 - 3 mm | |
| P/CM230 | Resistance to humidity : (Humidity test) | 500 hours later - no change | UNI EN ISO 6270-2:2005 |

NOTES

Be careful if a gas oven with direct flame is used to cure the primer, an adhesion test from the top coat to the primer must be performed, as nitrogen oxides could affect negatively the result.

NOTE TO USER

The information contained in this document while based on evidence and reliable methods can not be considered exhaustive.

This information are current to the date of issuance of this data sheet, therefore is under user's responsibility to verify that the data provided on this sheet are current to the date of the product.

The user, under its own responsibility, shall respect all the existing provisions on hygiene and safety and shall verify every time the features and the specific and appropriate way to use the product, cause the respect of the provisions is not under producer's direct control.

The manufacturer does not guarantee nor assume any liability or responsibility for whatsoever harm that might result from a misuse of the product or for damages that have arisen after the product's distribution.