



Neokem SA Technical Data Sheet

Neotec PP 101 Architectural Pure Polyester Powder Coating

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DESCRIPTION

NEOTEC PP 101 is a thermosetting TGIC-free powder coating based on saturated polyester resins especially selected for their excellent resistance to atmospheric ageing and U.V. radiation. These basic characteristics combined with the very good mechanical properties, provide coating films showing very good outdoor durability and excellent decorative properties. It is recommended for architectural aluminum profiles, panels, railings, outdoor machinery and equipment, automotive parts, coils etc. NEOTEC PP 101 is approved by Qualicoat (Approval number: P-0369) and GSB International (License number: 148a).

POWDER CHARACTERISTICS

- Colour : RAL.
- Gloss (ASTM D523 60°) : 85±10
- Density (Din 55990/3) : 1.50 ± 0.20 gr/cm³
(Depending on shade)
- Curing Conditions : 15 minutes at 180°C
(Object temperature)

POWDER APPLICATION

NEOTEC PP 101 is applied at a thickness of 60-100 microns, by electrostatic spray or tribocharging guns. The curing of the powder occurs in a suitable convection oven.

Pretreatment:

For aluminum components a multistage chromate or a suitable chrome free pretreatment is necessary in order to obtain optimal anticorrosion protection.

For galvanized steel substrates a multistage chromate pretreatment is necessary, attention should be paid in degassing properties of galvanized steel.

For steel substrates Iron Phosphate or Zinc Phosphate pretreatment is essential.

STORAGE- SHELF LIFE

Storage conditions: Keep dry, under 25 °C.
Shelf life: 24 months from the day of manufacture, provided that the above storage conditions are met.

CERTIFICATIONS

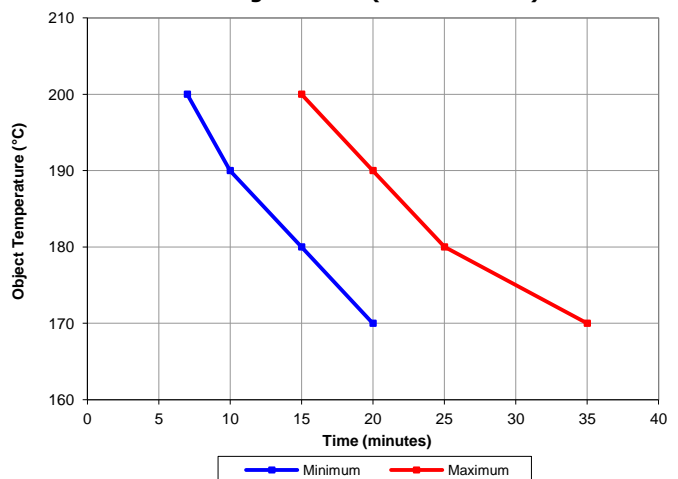
NEOTEC PP 101 conforms to Qualicoat and GSB specifications.



Neokem SA applies certified quality management and environmental system according to the standards: EN ISO 9001:2008 and EN ISO 14001:2009.



Curing Schedule (Gradient Oven)



Comments: Gradient oven results may differ from industrial application, and are given for guidance only. Gloss and color difference depends a lot on oven type. For direct flame gas ovens please contact us. Avoid rapid temperature rises.

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PHYSICOCHEMICAL PERFORMANCE OF THE COATING

TEST CONDITIONS

The general properties of the coating are determined on degreased and chromated Aluminum (DIN 50939). The results are based on mechanical and chemical tests that have been carried out under laboratory conditions as described in Qualicoat and GSB specifications. Actual product performance will depend upon the conditions under which the product is used.

- Curing conditions: 15 minutes at 180°C
- Thickness : 60 - 80 μ

Mechanical Properties

- Hardness Buchholz (ISO 2815): >80
- Adhesion (ISO 2409, 2mm): Gt = 0.
- Conical mandrel (ISO 1519, DIN 53152): Pass 3mm.
- Erichsen Cupping (ISO1520): > 5 mm
- Direct impact (ASTM D2794, ECCA T5): > 2.5 Nm
- Reverse impact (ASTM D2794, ECCA T5): > 2.5 Nm

Chemical Properties

- Sulphuric Kesternich (ISO 3231): Pass 30 cycles.
- Acetic acid salt spray (ISO 9227): Pass 1000 hours
- Resistance to mortar (ASTM D3260, ASTM C207): pass 24 hours
- Resistance to boiling water (Qualicoat B1): pass 2 hours
- Humidity (DIN 50017): 1000 hours no blistering
- Water spot test (GSB): pass
- Silicon adhesion (GSB): pass

Weathering Tests

- Natural weathering 12 months Florida 5° South:
> 50% gloss retention.
- Accelerated Weathering test QUV B (GSB cycle):
> 50% gloss retention after 300 hours.
- Accelerated Weathering test Suntest (Qualicoat cycle):
> 60% gloss retention after 1000 hours.

SAFETY PRECAUTIONS

NEOTECH PP 101 is intended for use only by professional applicators in industrial environments. Before using the product always read the relevant safety data sheet (SDS) that has been provided. If for any reason the SDS is not available, please contact NEOKEM to obtain a copy.

Disclaimer: This technical data sheet is aimed to advise you. This technical information comes from our experience, as well as that of specialized laboratories. Whilst we endeavour to ensure that all advice we give about the product is correct, we have no control over either the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage arising out of the use of the product. The application and the use of our products are placed under your responsibility. This does not constitute a formal or implied guarantee. The user, according to his requirements undertakes full responsibility of application and testing of the products to determine the suitability for a particular purpose. The information contained in this sheet is liable to modification in the light of experience and our policy of continuous product development.