NEOKEM SA
95, Agiou Georgiou Str., Koropi Attikis, 194 00, P.O Box 143
Tel: (+30210) 6626860, Fax: (+30210) 6625305
E-mail: **info@neokem.gr** • Web site: **www.neokem.eu**

Technical Data Sheet
Neotec PP 101
Architectural Smooth Gloss
Pure Polyester Powder Coatings

product description

PP 101 is a series of smooth gloss thermosetting powder coatings, based on polyester resins specifically selected for their excellent resistance to atmospheric ageing and UV radiation. These characteristics, combined with high mechanical properties, result in high performance coating films with very good outdoor durability and excellent decorative properties. PP 101 is designed for architectural use, on aluminum and galvanized steel. It is recommended for architectural aluminum profiles, panels, railings, outdoor machinery and equipment, automotive parts etc.

certifications and approvals

PP 101 is certified with the international quality label Qualicoat (Class 1 - Category 3, Approval number: P-0369), and by GSB International for Standard Aluminum Coating Material (License number: 148a**). PP101** meets the requirements of EN 12206-1:2021, class a.

In terms of reaction to fire, and in accordance with EN 13501-1, Neotec architectural polyester powder coatings are classified as: A2- s1, d0.

All **PP 101** products are heavy metal and TGIC free, they comply with the European directives 2011/65/EU and 2015/863/EU (RoHS).

powder properties

• Colour	RAL
• Gloss (ISO 2813/60°) *	83 ± 10 GU
• Density (ISO 8130-3)	1.45 ± 0.20 gr/cm³ (Depending on colour)
• Curing Conditions	15 minutes at 180 °C (Object temperature)

**The method is not suitable for metallic coatings.*

application

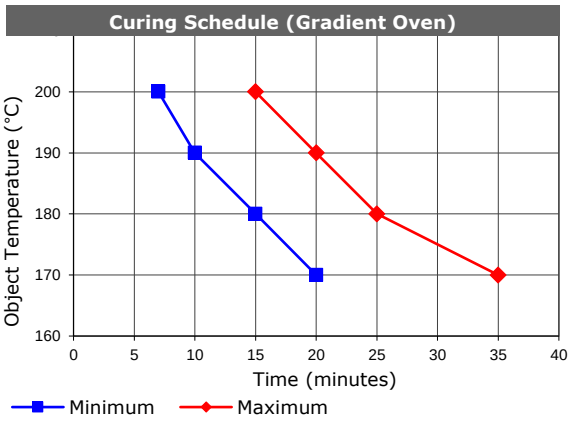
PP 101 is applied at a thickness of 60-100 microns by electrostatic spray or tribo-charging equipment. Light and very vivid colors (e.g. some reds, yellows, oranges, whites), should be applied at higher than 60 microns film thickness to ensure full coverage and therefore color homogeneity. The curing of the powder occurs in a suitable convection oven. Recommended Curing Index, at a minimum 100.

pretreatment

For aluminum components a full multistage chromate pretreatment, suitable chrome-free pretreatment or suitable pre-anodizing is necessary to obtain optimal anticorrosion protection. After anodic pretreatment, the aluminum shall be rinsed for such time and at such a temperature as is required to remove the acid from the pores and to fulfil the requirements of the wet adhesion test. Enhancing rinsing with a hot sealing step or a passivation alternative system step is permitted.

For galvanized steel a multistage Chromate or Zinc Phosphate pretreatment or controlled sweep blasting is necessary. Attention should be paid at the degassing properties of galvanized steel.

For steel substrates Iron Phosphate or Zinc Phosphate pretreatment is essential. For improved corrosion protection on steel and galvanized steel, Neotec E20/PR anticorrosive primer over a correctly prepared substrate is recommended.



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

NEOKEM SA
95, Agiou Georgiou Str., Koropi Attikis, 194 00, P.O Box 143
Tel: (+30210) 6626860, Fax: (+30210) 6625305
E-mail: **info@neokem.gr** • Web site: **www.neokem.eu**

Technical Data Sheet
Neotec PP 101
Architectural Smooth Gloss
Pure Polyester Powder Coatings

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 (EN ISO 2360): 60 - 80 microns

Mechanical Properties

- Adhesion (EN ISO 2409, 2mm): Pass, 0
- Bend Test (EN ISO 1519): Pass 5mm
- Erichsen Cupping (EN ISO 1520) >5mm
- Reverse Impact (EN ISO 6272-1, EN ISO 6272-2, ASTM D2794): >2.5 Nm
- Indentation Buchholz (EN ISO 2815): >80

Corrosion Tests – Chemical Properties

- Sulfur dioxide test in a humid atmosphere (ISO 22479): Pass 30 cycles
- Acetic acid salt spray (EN ISO 9227): Pass 1000 hours
- Resistance to mortar (ASTM D3260, EN12206-1, par.5.9): Pass 24 hours
- Resistance to boiling water (Qualicoat method 1): Pass 2 hours
- Condensation water test (EN ISO 6270-2): 1000 hours, no blistering
- Water spot test (GSB AL631): Pass

Weathering Tests

- Natural weathering 12 months Florida 5° South (ISO 2810): > 50% gloss retention.
- Accelerated Weathering test EN ISO 16474-2 (Qualicoat cycle): > 50% gloss retention after 1000 hours.
- Accelerated Weathering test QUV-B ISO 16474-3 (GSB cycle): > 50% gloss retention after 300 hours

post application

For the suitability of post coating processes such as post forming, or the use of sealants, adhesives etc., please consult NEOKEM.

maintenance

Generally, the coated parts must be cleaned in accordance with the regulations: Cleaning and Protection, Facade and Monument RAL-GZ 632. For specific recommendations on cleaning and maintenance, please consult the “Neotec Architectural series: Cleaning and Maintenance Guidelines” available from NEOKEM.

storage-shelf life

Storage conditions: Keep dry, under 25 °C, in closed boxes. The maximum temperature should not exceed 35 °C.
Shelf life-Recommended Retest Period (RRP): 36 months from the day of manufacture if the above storage conditions are met. After this period, the product can be used, provided that the free flow of the powder, the mechanical properties and the appearance of the film have been positively tested. This extension lasts for a maximum of 6 months after the tests. Higher storage temperatures could lead to shorter RRP.

NEOKEM SA
95, Agiou Georgiou Str., Koropi Attikis, 194 00, P.O Box 143
Tel: (+30210) 6626860, Fax: (+30210) 6625305
E-mail: **info@neokem.gr** • Web site: **www.neokem.eu**

safety precautions

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

Technical Data Sheet **Neotec PP 101**