ELM PLI48

Technical Data Sheet

ELM PLI48 *Outdoor quality*

ELM PLI48 is thermosetting powder coating based on saturated polyester resin base, the corresponding hardener plus special heat, light (UV) and chalk resistant pigments. Thanks to special resin technology they have very good outdoor quality and flow. It has good yellowing resistance combined with excellent overall performance.

Characteristics

- Very good weather and light resistance
- Excellent mechanical properties
- Suitable for cold climates (<-40 ° C)
- No VOC

Powder specifications

- Particle size	< 300 µm
- Average particle size	30-60 µm
- Solids	> 99%
- Density	1,3-1,8 gr/cm³
- Storage stability	min 24 months (min 12 months for metallic color)
- Storage Temperature	cool and dry at < 25° C

Applications

- Facade elements, window profiles
- Doors
- Agricultural machines
- Garden and Camping furniture
- Electric and power transformers

Product range

Surface appearance

Smooth semigloss, Smooth gloss, Smooth semimatt, wrinkle and texture effect

Colors

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Mainly RAL, Pantone and NCS shades, special shades on request

Product performance

To obtain the following data, ELM PLI48 was coated as follows

Degreased steel	0,5 mm
Coating thickness	70-100 µm
Object temperature	180 °C 10 min

Test	Method	Result
Impact	ASTM D2794	> 20 kgcm
Erichsen cupping	ISO 1520	> 5 mm
Buchholz hardness	ISO 2815	> 90
Mandrel bending		< 5 mm
Cross-cut adhesion	ISO 2409	GT 0

Condensed water and salt spray test results depend on pre-treatment of metal
> 400 hrs condensed water test DIN 50017; no infiltration, no blisters for zinc fosfate steel
> 400 hrs nautral salt spray test ISO 9227; no infiltration, no blisters for zinc fosfate steel
> 1000 hrs nautral salt spray test ISO 9227; no infiltration, no blisters for chromated aluminium

Application instructions

The substrate to be coated must be free of dirts, oil, rust etc.
For aluminium depending on intended purpose, degreasing or chromatising
For steel metal depending on intended purpose, degreasing, Fe –phosphating or Zinc phosphating
ELM PLI48 can be applied by all commercial electrostatic systems both corona and tribo.

Curing Schedule

Object temperature	Retention time at object temperature
170 °C	15 min
180 °C	10 min
190 °C	8 min

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