

Technical Data Sheet

intercoat series 440

thermosetting powder coating for outdoor use polyester
low temperature cure (LT)
smooth gloss | rough gloss structure | fine texture

Product description

Thermosetting powder coatings, formulated without TGIC especially for both outdoor and indoor use. The curing coatings Intercoat 440 offers good weather resistance, mechanical properties and good quality of coating surface. The low temperature coatings can be cured from 150-170 °C thereby offering energy saving during the cure process.

Typical application

The Intercoat 440 powder coating is designed for use in the construction industry, various road safety elements. Resistant to various external influences, high temperatures, chemical solvents, gives an attractive appearance of the coating. Typical application Intercoat 440: articles for garden, car accessories, cycles and motorbikes parts, agricultural machinery and domestic items.

Product details

- Packages: carton with antistatic PE bag liner, 20 kg, 25 kg or Big Bag for approx. 500 kg, net
- Storage Stability: min 24 month from manufacture (see printed date on product label)
- Storage temperature: < 25°C
- Moisture: < 80%
- Specific Gravity (ISO 8130-2): smooth 1.50-1.65 g/cm³ rough structure/fine texture 1.50-1.75 g/cm³ depending on pigmentation
- Moisture content (ISO 8130-7): < 0.4%
- Fluidization (ISO 8130-5): excellent ≥140 points
- Particle size distribution (ISO 8130-13):
 - fine fraction up to 10 µm in size: < 5%
 - base fraction up to 32 µm in size: 25-45%



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Gloss level

- Smooth gloss 75-100*
- Fine texture: visual comparison
- Rough gloss structure: visual comparison

* Gloss level acc. to DIN EN ISO 2813/60° angle (doesn't apply to metallic effect powder coatings). The gloss index can be set by agreement with the consumer. Gloss of coating parameters other than indicated in the table can be agreed with the customer.

Test results

Checked under laboratory conditions on a chromated 0.8 mm thick aluminium test panel. Actual product performance may vary due to product specific properties such as gloss, color, effect and finish as well as application related and environmental influences..

Test method	Test	Smooth gloss	Fine texture	Rough gloss structure
ISO 2360	film thickness recommended	60-80 µm	70-90 µm	80-100 µm
ISO 2409	cross cut test/adhesion 1mm cutting distance	GT 0	GT 0	GT 0
ISO 1519	mandrel bending test cracking of coating	≤5 mm	≤12 mm	≤12 mm
ISO 2815	impression hardness	≥87	-	-
ISO 3668	coating color, deviation	≤1	≤1	≤1
ISO 6272	ball impact test cracking of coating	No cracks	Cracks	Cracks
ISO 6270-1	determination of resistance to humidity 1000 h	≤1 mm	≤1 mm	≤1 mm
ISO 9227	salt spray test 1000 h	≤1 mm	≤1 mm	≤1 mm



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Processing

Corona, Tribostatic*.

** Available upon inquire.*

Color shades

Mainly RAL shades; also, special domestic shades on request*.

** Color of coating parameters other than indicated in the table can be agreed with the customer.*

Pretreatments

Before the painting, the item should be adequately pretreated in accordance with surface type, final use and required performances. The following table can be used as starting point for the pretreatment choice. The surface shall be clean, dry and appear with a rough and dull profile.

Substrat	Indoor use	Outdoor use
Aluminium	soil removal, chromate, chrome-free	chromate, chrome-free
Steel	soil removal, iron phosphate, zinc phosphate, sand-blasting	iron phosphate, zinc phosphate, sand-blasting
Zinc coated steel	acid attack, iron phosphate, chromate	acid attack, zinc phosphate, chromate

Oxides (rust) cleaning and de-greasing shall be carried out when the simplified process is used! The simplified pre-treatment does not ensure necessary protective properties and decreases the service life of the coating. Hot-dip galvanized steel requires additional mechanical processing (incision).



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Cure parameters

Temperature and time combinations resulting in the optimal cross-linking of the coating.

Typical curing

10-12 min 160°C

Please observe cure parameters closely since mechanical properties will develop before full cross-linking!

To obtain optimal stoving conditions you are recommended to carry out practical trials, adapted to the object in question and the stoving oven each time. Temperature conditions of curing for each powder are listed on the label. Our technical service department will be glad to advise you.

The curing mode schedule can be set by agreement with the consumer.

Note

The data is provided for informational purposes and is not exhaustive. Any purchaser using the product other than as specified in this data sheet assumes responsibility for the results obtained. As the manufacturer, we provide a more accurate description of the product, conditions of use and all related factors of the application process. Because direct control by us cannot be exercised over compliance with the above conditions, without further written agreement, we make no warranty and assume no liability for the use of the product and the results obtained.



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