

INFRALIT PUR 8457-00

Anti-graffiti polyurethane powder

INFRALIT PUR 8457-00 is a polyurethane powder coating. At elevated temperature the powder will melt, cure and form the final paint film.



Suitable for use on steel and aluminium structures on objects where good weathering properties and special resistance to chemical and washing is required, e.g. gasoline pumps.

Anti-graffiti powder, which has better resistance to chemicals, oils and gasoline than traditional polyester and polyurethane powders.

TECHNICAL DATA

Fields of application	Steel constructions, Transportation equipment, Machinery
Recommended substrate	Aluminium, Steel, Zinc
Binder	Polyurethane
Solids	100%
Practical spreading rate	10 - 15 m ² /kg depending on the film thickness.
Film thickness	The recommended film thickness is 60 - 100 µm. The optimal film thickness must be defined case-specifically by test applications. In some cases the film thickness might exceed the previously mentioned maximum value.
Colours	Available in colours according to RAL, NCS S or other colour cards.
Gloss (60°)	Matt
Density	Approx. 1.6 kg/dm ³ depending on colour.
Storage	The storage life is minimum 18 months in dry and cool conditions when the temperature during storage and transportation is max. +25°C. Take special care during high temperature seasons. Avoid storing close to heat sources and heaters in trucks and storages. Don't store in direct sunlight. The recommended expiry date of the powder coating that has been stored according to the instructions is shown on the package label.
Packaging	15 kg or 20 kg according to the density of the powder.

Anti-graffiti properties

Type	Detergent
Permanent marker	Graffiti remover*, denatured alcohol, isopropanol, acetone
Spray paint**	Graffiti remover*, denatured alcohol, isopropanol, acetone
* Commercial graffiti removers were used in the tests, but the suitability of each graffiti remover / other detergent must be tested before actual use.	
** Alkyd paint	

DIRECTION FOR USE

Surface preparation

STEEL SURFACES: Remove grease and dirt. After that blast-cleaning at least to preparation grade Sa 2½ (ISO 8501-1) and/or a suitable chemical pretreatment.

ALUMINIUM SURFACES: Remove grease and dirt. After that chromating or alternatively a suitable chemical pretreatment.

Application method

Tribo charging spray, Corona charging spray

Curing time

15 min/200°C (substrate temperature)

Curing time indicates the time needed for the curing of the coating.

Curing parameters and oven type may effect the colour and gloss of the coating.

The temperature of the powder coating has to reach the temperature inside the paint shop before the package is opened. The application properties may be deteriorated, if the temperature of the powder is lower than this.

HEALTH AND SAFETY

Safety and precaution measures

See safety data sheet.

The powder itself is non-flammable, but with air it can form an explosive mixture that in presence of adequate ignition energy ignites. The lower explosion limit of typical powder coatings is between 20 g/m³ and 80 g/m³ (CEPE, Safe Powder Coating Guideline 8th Edition, 2020). Ventilation of the spray booth should be adjusted so that the concentration of powder in the air is less than 50% of the lower explosive limit value. On calculation of the powder concentration in the spray booth, the powder deposited on the workpiece is not taken into account. In order to avoid the discharge of powder from the booth into adjacent working spaces, the speed of air flow in the apertures of the booth must not fall below 0.5 m/s. Spray painters should wear dust masks and protective gloves. Any spatter of powder on the skin should be washed off with water and soap.

ADDITIONAL INFORMATION

Additional information

Resistance to chemicals	
Tested according to ISO 2812-4:2007 spotting methods, exposure time 8 h / +23 °C.	
Isopropanol	No change
Engine oil	No change
10 % HCl solution	No change
10 % NaOH solution	No change

FILM PROPERTIES

Typical values	Substrate 0.8 mm thick cold-rolled steel, curing 15 min/+200 °C, film thickness 60 - 70 µm. Testing 1 h after curing:
Bend test (Conical mandrel) SFS ISO 6860, mm	OK
Cross-cut test ISO 2409	GT0
Cupping ISO 1520, mm	6.0
Impact resistance, ISO 6272-2, direct, kgcm	40.0
Impact resistance, ISO 6272-2, reverse, kgcm	40.0
Pencil Hardness ISO 15184	H

Teknos Group Oy Takkatie 3, P.O.Box 107 FI-00371 Helsinki, Finland Tel. +358 9 506 091

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