IGP-DURA®*mix* 312S

Coarse structure for indoor use, silk gloss

Technical Data Sheet

Decorative silk-gloss coarse structure powder based on saturated polyester and epoxy resins and on the corresponding heat- and light-resistant pigments.
This reactive polyester-epoxid system allows stoving temperatures from 160°C.

Characteristics

- good general durability
- impact-resistant, silky gloss surface
- good elasticity

Applications

- housings for automatic devices
- office furniture
- office chairs
- household appliances
- small components with complex shapes
- machine housings
- switch cabinets

Product range

Surface appearance:

- **312SA,** coarse structure, silk gloss

In addition, pearl mica effects are available as 312SE.

Shades:
Primarily RAL and NCS shades; special custom shades by prior arrangement.

Powder specifications

- Particle size: < 100 µm
- Solids: approx. 99%
- Density: approx.1.3-1.6 kg/l
- Storage stability: 24 months
- Storage temperature: < 25° C

Packaging

- Carton with antistatic PE bag liner, capacity 20 kg, net.
- Carton container with 25 antistatic PE liner bags, capacity 500 kg, net.

Safety data sheet: SD 010

IGP Pulvertechnik AG
Industrie Stelz, Kirchberg
CH-9500 Wil
Telefon +41 (0)71 929 81 11
Telefax +41 (0)71 929 81 81
www.igp.ch
info@igp.ch

www.doldgroup.com

IGP-DURA®*mix* 312S

Processing instructions

Pre-treatment

The substrate to be covered must be free of oxidation products, scale, oil, fat or release agent residues.

- Aluminium, either de-greasing or chromatising in accordance with DIN EN ISO 12487, depending on intended use.
- Steel or zincor sheet metal, either de-grease or iron phosphating, depending on intended use

For more in-depth information, see our special insert on pre-treatments (IGP-TI 100).

Coating equipment

All standard electrostatic systems, such as "corona" as well as "tribo-charging" (but excluding pearl mica effects), which can only be processed with "corona charging". Regulations to be observed: VDE provisions and VDM Information Sheet 24371.

Information regarding application

The thickness of the applied coating is crucial for creating an even structure. We recommend applying a film thickness of no less than 80 µm.

Recyclability

Recycled powder should be added in small portions, (automatically, if possible), and mixed with fresh powder. IGP processing instruction VR201 must also be observed for pearl mica effects.

Compatibility

IGP-DURA®*mix* 312S contains structure agents which are incompatible with all smooth finish coating powders. Even small traces can cause flaws in the form of craters. It is thus vital to ensure utmost cleanliness when changing powders.

Stoving conditions

Temperature and time combination resulting in optimum cross-linking of the coating.

Object-temperature	*Retention time at object temperature minimum*
160°C	**10 min. ***
180°C	7 min.
190°C	5 min.

* Recommended curing conditions.

In all cases, practical experiments adapted to the particular object and baking oven are recommended in order to determine the best possible baking conditions. Our technical customer service would be happy to advise you.

Technological values

To determine the following data, IGP-DURA®*mix* 312S was applied as follows:

- iron sheet metal 0.8 mm
- coating thickness 80 µm
- object temperature of 160°C, 10 min.

cross-cut adhesion test, DIN EN ISO 2409	Gt 0
mandrel bending test, DEN EN ISO 1519	< 5 mm
impact penetration, ASTM D2794	> 10 cm x kg
Erichsen cupping, DIN EN ISO 1520	> 5 mm
Buchholz hardness, DIN EN ISO 2815	> 80

500-1000h* water condensate test, DIN EN ISO 6270-2: no blisters, no infiltration.
(*based on pre-treatment)

500-1000h* salt spray test, DIN EN ISO 92271: no blisters, no infiltration.
(*based on pre-treatment)

Long-term heat stability: gradual yellowing starting at 120° C.

Chemical resistance IGP-DURA®*mix* 312S shows good stability against many diluted acids and alkaline solutions. Exposure to organic solvents is only conditionally possible, on a short-term basis. Stability should be examined on a case-to-case basis.

Note

This technical application advice is provided in accordance with current findings, but must be regarded as a non-binding notice and does not release you from conducting your own tests. Application, use and processing of the products occur beyond our control possibilities and therefore lie exclusively in your sphere of responsibility.

IGP Pulvertechnik AG · Industrie Stelz, Kirchberg · CH-9500 Wil · Tel. +41 (0)71 929 81 11 · Fax +41 (0)71 929 81 81 · www.igp.ch · info@igp.ch

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