# SIRALES® PE 8421

PRODUCT DATA SHEET

RS/045/050004/1

# **Description**

Carboxylated polyester resin, free from trimellitic anhydride, suitable for HYBRID powder coatings.

# **Applications**

Sirales PE 8421 is suggested in combination 70/30 p.b.w. with EPOSIR 7167 PG or EPOSIR 7175 PG, to manufacture powder coatings with high reactivity combined with good flow, good mechanical properties and with good Tribo applicability.

Curing cycles (real time) 15 min. at 170°C

20 min. at 160°C

**Sales specification** 

| Property                            | Value     | Unit        | Method      |
|-------------------------------------|-----------|-------------|-------------|
| Acid number                         | 32 40     | mg KOH/gr   | SIR 10328   |
| Viscosity at 200°C (ICI cone plate) | 3500 5500 | m.Pa.s.     | SIR 10391   |
| Colour (1)                          | 3 max.    | Sc. Gardner | ASTM D 1544 |

<sup>(1)</sup> Determined on 50% m/m solution on dimethylformamide.

### **Typical Properties**

| Property                     | Value | Unit                 | Method             |
|------------------------------|-------|----------------------|--------------------|
| Glass transition temperature | 54    | $^{\circ}\mathrm{C}$ | <b>ASTM D 3418</b> |

#### **Supply Form**

Product is available as irregular flakes packed in 25 kg Polyethylene bags.

#### Storage stability

The product should be stored in the original bags kept tightly closed, away from sunshine and heat sources. Under these conditions and at a normal temperature (20°C) the resin should have a stability of one year.

#### Safety

The product is not flammable and no toxic effect has been determined.

Further information are provided in the relevant safety data sheet.

SIRALES  $^{\tiny{(8)}}$ : SIR INDUSTRIALE registered trade mark.

N.B.: The data given in this brochure do not constitute characteristic properties of the single product. To our best knowledge, the information contained in this brochure is accurate and corresponds to the truth.

However, any recommendations or suggestions are provided without any guarantee, since the conditions in which the products are used are not under our control. Furthermore, nothing contained in this brochure shall be interpreted as a recommendation for using the product in violation of any patents relating to the material and their uses.

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# **APPLICATION** DATA

# **Typical formulation**

| SIRALES PE 8421    | 420 |
|--------------------|-----|
| EPOSIR 7168 PG     | 108 |
| EPOSIR 7170 PGF-10 | 80  |
| BENZOIN            | 5   |
| KRONOS 2310        | 287 |
| Blanc Fixe F       | 100 |

### **Extrusion condition**

| Extruder            | BUSS PLK 46  |
|---------------------|--------------|
| Casting temperature | 100°C        |
| Screw temperature   | Cold         |
| Speed               | 80 - 120 rpm |
|                     |              |
|                     |              |

# Film properties (curing cycle 15 min. at 170°C; 20 min. at 160°C real time)

| Film thickness                       | 60-100μm |
|--------------------------------------|----------|
| Identation (DIN 53156)               | > 9 mm   |
| Direct gardner impact (ASTM D 2794)  | > 10 Nm  |
| Reverse gardner impact (ASTM D 2794) | > 10 Nm  |
| Mandrel bend resistance (ASTM D 522) | pass     |