

## LongCester® P 5420

Saturated carboxylated polyester resin

### General Description

LongCester® P 5420 is TGIC curing resin, 96/4 type, for industrial purposes. Can be used for dryblend low gloss with P5016

- Good outdoor durable
- Slow cure
- Good Flow
- Very good mechanical performance
- Matt gloss

### Extrusion & Application Conditions

|                |                                     |
|----------------|-------------------------------------|
| Extruder:      | Lingyu SLJ-20                       |
| Zone I temp.:  | 85~105 C                            |
| Zone II temp.: | 100~120 C                           |
| Screw speed:   | 400~500rpm                          |
| Panel:         | 0.5mm pre-treated cold-rolled steel |
| Spray gun:     | Lingyu JP-80                        |
| Voltage:       | 60~90kV                             |
| Curing cycles: | 10 min. @ 200 C                     |

### Packaging

- White PE bag, N.W.25kg/bag, 1000kg/pallet.
- Big bags 750 kg.

### Storage

The product can be stably stored for at least one year when kept in closed containers in a dry place at temperature below 30 C. Avoid exposure to direct sunlight.

### Product Specifications

| Property                    | Range          | Test Method |
|-----------------------------|----------------|-------------|
| Appearance                  | Clear granules | Visual      |
| Acid value, mgKOH/g         | 20~24          | ASTM D1639  |
| Viscosity @ 200 C., Pa·s    | 40~60          | ASTM D4287  |
| Gardner Color(50% solution) | max.10         | ASTM D1544  |

### Other Data

| Property                  | Range      | Test Method |
|---------------------------|------------|-------------|
| Glass transition temp., C | approx. 65 | DSC         |

### Starting Formulation

| Component            | Weight % |       |
|----------------------|----------|-------|
| LongCester® P 5420   | 660.0    | —     |
| LongCester® P 5015-1 | —        | 618.5 |
| TGIC1)               | 27.5     | 69.0  |
| Titanium dioxide2)   | 300.0    | 300.0 |
| Flow control agent3) | 9.5      | 9.5   |
| Benzoin              | 3.0      | 3.0   |

1) Araldite® PT 810, Huntsman Advanced Materials

2) Ti-Pure® R-960, DuPont Titanium Technologies

3) Resiflow PV 88, Estron, BYK® 366P, BYK

### Film Properties

| Item                            | Result     | Test Method  |
|---------------------------------|------------|--------------|
| Film thickness, μm              | approx. 60 | ASTM D1186   |
| Gloss @ 60°, %                  | ~15 unit   | ASTM D523    |
| Direct/reverse impact, inch lbs | 160/160    | ASTM D2794   |
| 1/8" Conical mandrel            | pass       | ASTM D522    |
| Adhesion(cross cut)             | 5B         | ASTM D3359   |
| Pencil hardness (Mar)           | H          | ISO 15184-98 |