

# EP-4102

Version: Aug 30, 2017

|                               |             |
|-------------------------------|-------------|
| <b>POWDER COATING RESINS</b>  | <b>TGIC</b> |
| <b>PE : HARDENER = 95 : 5</b> |             |

## Description

EP-4102 is a saturated carboxylated polyester resin designed for 95/5 TGIC powders to be cured at 200°C. A 1:1 dry blend based on EP-4101 and EP-4102 gives a very nice matte finish at approximately 22-26 % gloss at 60 degree.

## Specification

| Item                        | Limits      |
|-----------------------------|-------------|
| Acid value (mg KOH/g)       | 18 - 24     |
| Viscosity @ 200 °C, (mPa.s) | 6300 - 6800 |
| Color, b value              | Max 10      |

## Other

| Item                              | Typical value |
|-----------------------------------|---------------|
| Glass transition temperature (°C) | 65            |

## Storage conditions

The resin in its original unopened bags is stable for more than 1 year, stored in a dry place at temperature below 30°C. Avoid direct sunlight.

## Delivery form

Granules. White opaque polyethylene bags of 25kg. One ton per pallet .

## Starting Formulation

| Component        | Weight (g) |
|------------------|------------|
| EP-4102          | 570        |
| TGIC             | 30         |
| TiO <sub>2</sub> | 386        |
| Flow agent       | 10         |
| Benzoin          | 4          |

## Application/Extrusion Conditions

| Extrusion                        |   |
|----------------------------------|---|
| Extruder                         | Twin screw                                      |
| Speed                            | 250 rpm   |
| 1 <sup>st</sup> Zone Temperature | 100 °C  |
| 2 <sup>nd</sup> Zone Temperature | 120 °C  |
| Application                      |   |
| Application                      | 70 micrometer film on 0.5 mm chromated Al panel |
| Spray Gun                        | Output voltage: 70 kV                           |
| Curing                           | 10 min @ 200° C metal temperature               |

## Coating Properties

| Test Items               | Result |
|--------------------------|--------|
| Film thickness (microns) | 60-80  |
| Gloss @ 60° (%)          | 90     |
| Cupping test (mm)        | 9      |
| Direct impact (kg.cm )   | 80     |
| Reverse impact (kg.cm )  | 80     |
| Adhesion (grade)         | 0      |

## System Properties

- ❖ Very good durable ability
- ❖ Good over-baking resistance

|  |   |   |
|--|---|---|
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