

PIPM- 5001

DESCRIPTION

The PIPD-5001 is a pre-promoted, thixotropic, isophthalic polyester resin.

FEATURES AND BENEFITS

- Good wet out properties
- Good mechanical properties.
- Low shrinkage.

APPLICATIONS

- Mold manufacturing

TYPICAL LIQUID PROPERTIES

| Property | Units | Value min. | Value max. | Test Method |
|-----------------------------------|-----------------|------------|------------|-------------|
| Brookfield viscosity ² | Cps | 600 | 800 | TARQ-300 |
| Thixotropic Index ³ | — | 3 | — | TARQ-300 |
| Non-volatile content | % | 50 | 52 | TARQ-200 |
| Acid Number (Solution) | Mg KOH/g sample | — | 25 | TARQ-100 |
| Gel Time ¹ | Minutes | 35 | 40 | TARQ-400 |
| Interval | Minutes | 8 | 14 | TARQ-400 |
| Peak Exotherm | °C | 150 | 200 | TARQ-400 |
| Stability at 120°C | Hours | 1 | — | TARQ-660 |
| Density | g/ml | 1.060 | 1.090 | TARQ-700 |
| Appearance | — | Cloudy | | N/A |

¹1.25% Butanox M-50 @25°C; ² RVF, spindle # 2, 20 rpm @25°C; ³ RVF, spindle # 2, 2 rpm / 20 rpm @25°C

NOTE: Tests results compared with the reported in certificate can be affected due to: batch age, temperature, moisture, type and amount of catalyst, testing equipment and method.

PHYSICAL PROPERTIES

Physical properties are shown for fiberglass laminated. These are typical values and are provided for reference only.

| Property | Units | Values | Test Method |
|-------------------|-------|---------------------|-------------|
| Tensile Strength | Psi | 16,606 | ASTM D-638 |
| Tensile Modulus | Psi | 1.082×10^6 | ASTM D-638 |
| Elongation | % | 12.21 | ASTM D-638 |
| Flexural Strength | Psi | 32,580 | ASTM D-790 |
| Flexural Modulus | Psi | 1.55×10^6 | ASTM D-790 |
| HDT | °C | 94 | ASTM D-648 |

1.- Laminate construction: 30% fiberglass to resin ratio.

2.- Laminate cured overnight at room temperature and post-cured at 65°C for 5 hours.

3.- HDT is evaluated at neat resin casting.

RECOMMENDATIONS

- 1.- The catalyst level should not exceed 2.8% or fall below 1% for proper cure.
- 2.- This product should not be used when temperature conditions are below 16°C, as curing and handling may be adversely affected.
- 3.- Before use:
 - Mix once a day for 10 minutes, starting from the edges towards the center of the drum with the least possible turbulence.
 - Avoid air assistance, this is not effective and may cause water or oil contamination.
 - Avoid over-mixing, due to potential filler separation and increased tendencies to sag.
- 4.- Do not add any material different to the catalyst recommended for this product.
- 5.- Do not mix organic peroxides with metallic soaps, amines or any type of accelerators or promoters, because it can result on violent decomposition with fire or explosion.
- 6.- Any additional questions, please contact your Reacciones Químicas SA de CV sales representative.

STORAGE

Uncatalyzed PIPM-5001 resin, have a usage life of three months from invoice date, when stored at 25°C or below, in a closed, opaque, factory sealed container, out of direct sunlight, heat sources or moisture. For every 7°C increase in storage temperature, the shelf life is reduced by one half.

SAFETY AND HANDLING

Detailed information on the safe handling of the PIPM-5001 can be found on its SDS. For more information, please contact your Reacciones Químicas SA de CV sales representative.

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