



Technical Data Sheet:

UP-300

Product Name and Identification:

- Product Name: UP-300
- Chemical name: Orthophthalic Unsaturated Polyester Resin

Product Description:

: UP-300 is a high-quality unsaturated polyester resin based on phthalic acid, specially designed for manufacturing fiberglass components. With medium reactivity, good mechanical properties, and suitable viscosity, UP-300 is a versatile resin that offers reliable performance in various applications. This high-quality resin is highly transparent, allowing for necessary penetration among the fibers. UP-300 is a flexible resin that improves mechanical properties such as tensile strength, flexural strength, and impact resistance compared to other polyester resins.

Physical and Chemical Properties:

1. **Viscosity:** 300-400 mPa.s
2. **Percent Solids:** 63-66 %
3. **Density at 20 °C:** 1.05-1.13 g/cm³
4. **Acid Value (Solids):** <30 mg KOH/g
5. **Color (gardener):** <2
6. **Gel Time:** 5-10 minute
7. **Curing time:** 10-15 minute
8. **Peak Temperature:** <200 °C

Technical Performance:

Parameter	Result	Units	Test Method
Hardness (Barcol):	35 - 40	-	ASTM D2583
Tensile Strength:	60 - 70	Mpa	ISO 527-2
Elongation at Break:	3 - 4	%	ISO 527-2
Flexural Strength:	90 - 120	Mpa	ISO 178
Flexural Modulus:	2500 - 3000	Mpa	ISO 178
Heat Distortion Temperature:	50 - 60	°C	ISO 75-2
Water Absorption, 24 hrs.:	≤ 0.30	%	ISO 621958



Application and Use: Transparent Decorative Pieces Urban Furniture Grating Mannequins and statues

Curing Conditions: At a temperature of 25°C for every 100 grams of resin adding 1.44 grams (1% concentration) of cobalt accelerator and 2.2 grams of hardener (MEKP-A60).

Packaging and Shelf Life:

Packaging Options: UP-300 is conveniently packaged in robust 200 kg metal barrels.

Shelf Life: Under optimal storage conditions, UP-300 exhibits a shelf life of 6 months.

