



## Technical Data Sheet:

# UP-10A

### Product Name and Identification:

- Product Name: **UP-10A**
- Chemical name: **Orthophthalic Unsaturated Polyester Resin**

### Product Description:

UP-10A is an exceptional unsaturated polyester resin, derived from phthalic acid, specifically designed for various manufacturing applications. With its suitable mechanical properties, UP-10A ensures reliable performance and durability. This resin exhibits optimal viscosity, offering high fluidity and desired activity during the production process. Its high wetting capability ensures excellent impregnation and adhesion to different materials. UP-10A is particularly well-suited for manufacturing sculptures and a wide range of sheets, allowing for the creation of intricate and high-quality finished products.

### Physical and Chemical Properties:

- 1. Viscosity:** 300-400 mPa.s
- 2. Percent Solids:** 64-67 %
- 3. Density at 20 °C:** 1.05-1.13 g/cm<sup>3</sup>
- 4. Acid Value (Solids):** <30 mg KOH/g
- 5. Color (gardener):** <3
- 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:

Mannequin

Statue

Sheets

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-10A is conveniently packaged in robust 200 kg metal barrels.

Shelf Life: Under optimal storage conditions, UP-10A exhibits a shelf life of 6 months.

