

Chemical / physical nature:

UP - 400 is an Orthophthalic unsaturated polyester resin with high reactivity and medium Viscosity.

Major application:

The UP-400 is intended for production of fiber-glass composite materials with appropriate mechanical properties for piping application, auto-motive industry, phone booths, etc.

Stability:

Under the above mentioned storage condition the stability of UP – 400 will be 4 month ex work.

Technical information:

Storage:

UP - 400 should be storage indoors in original Unopened and undamaged containers in a dry place at storage temperature under 25 °C. Exposure to sunlight should be avoided



Specific	Amount	Unit	Standard
Solvent	Styrene		
Appearance	Clear		
Solid content	60 + 2	Percent	ISO 3251
Acid Value	Max: 3	mg KOH/g	ISO 2114
Viscosity of SMC,BMC resin	200-300	CPS	ISO 2555
Density	1.13 + 0.5%	g/cm3	ISO 1676
Gel time*	10 -20	min	*
Exothermic Peak	160-180	°C	*
Exothermic time	15 -20	Min	*

* 100 gr resin UP - 400 with 1 gr cobalt octoate 1% metal and 1 gr MEKP at 25°C.

Properties of cast resin :

Specific	Amount	Unit	Standard
Tensile strength	65 - 75	MPa	ISO 527
Tensile modulus	4-7	MPa	ISO 527
Elongation at break	3-6	Percent	ISO 527
HOT	70 + 2	co	ISO 75
Hardness	35 Min	Barcol	ASTM D 2583
Volume shrinkage	9>	percent	ASTM D 570
Water absorption	0/5>	percent	ISO 3521

*100 gr resin with 0.5 gr colorless cobalt 6% metal and 1 gr MEKP Post cure: 24 hour at room temperature and 2 hour at 80 °C