



Orthophthlaic unsaturated polyester Resin UP-975

Chemical / physical nature

UP – 975 is an orthophthalic unsaturated polyester resin with medium viscosity, medium reactivity and mechanical properties. This resin has good UV resistance.

Major applications

UP – 503 is intended for mastic resin in non-continuous systems. This resin has a high dilute ability by solvent and excellent powder absorption. The mastic produced from this resin has excellent and stable thixotropic properties. In order to cure the produced mastic, it is necessary to add about 0.1% amine (such as dimethyl aniline) and 1-2 % benzoyl peroxide paste.

Specification

specific	amount	unit	standard
Solvent	Styrene	----	----
Appearance	Viscous liquid	----	----
Solid content	63 ± 2	Percent	ISO 3251
Acid value	Max 45	mg KOH/g	ISO 2114
Viscosity	400-800	cps	ISO 2555
Density	1.13±0.5%	g/cm ³	ISO 1675
Gel time *	18-20	min	*
Exothermic Peak	140-165	°C	*
Exothermic time	25-35	Min	*

* 100 gr resin UP – 975 with 1 gr cobalt octoate 1% metal and 1 gr MEKP at 25°C.

Properties of cast resin*

Property	Value	Unit	Standard
Tensile strength	60-85	MPa	ISO 527
Tensile modulus	3-6	GPa	ISO 527
Elongation at break	3-7	Percent	ISO 527
HDT	50 ± 2	°C	ISO 75
Hardness	Min 40	Barcol	ASTM D 2583

*cobalt octoate 1% metal : 1% and MEKP : 1%
Post cure: 24 hours at room temperature and 2 hour at 80 °C.

Storage

UP – 503 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.

Stability

Under the above mentioned storage condition the stability of UP – 503 will be 4 month ex work.