

Chemical / physical nature:

UP - 112 is an Isophthalic unsaturated polyester resin with superior reactivity and high viscosity.

Major application:

UP-112 is intended for production of SMC, BMC due to its high reactivity. Thixotropic resin can be prepared easily and it is compatible with shrinkage reducing agent. In addition low viscos and medium viscos UP-112 resin can be used in com-posite materials produced by spray and hand lay-up methods.

Storage:

UP-112 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-112 will be 4 month ex work



Technical information:

| Specific | Amount | Unit | Standard |
|----------------------------|-------------|----------|----------|
| Solvent | Styrene | | |
| Appearance | Clear | | |
| Solid content | 60 + 2 | Percent | ISO 3251 |
| Acid Value | Max20 | mg KOH/g | ISO 2114 |
| Viscosity of SMC,BMC resin | 900-1200 | CPS | ISO 2555 |
| Density | 1.12 + 0.5% | g/cm3 | ISO 1676 |
| Gel time* | 120 -190 | min | * |
| Exothermic Peak | 250 -280 | °C | * |
| Exothermic Time | 250 - 300 | Min | * |

* 100 gr resin UP - 112 with 1-1.5 gr TBPB (Trigonex-C) at 80-100°C.

Properties of cast resin :

| Specific | Amount | Unit | Standard |
|---------------------|---------|---------|-------------|
| Tensile strength | 75 - 85 | MPa | ISO 527 |
| Tensile modulus | 6-7 | MPa | ISO 527 |
| Elongation at break | 4-6 | Percent | ISO 527 |
| HOT | 110 + 2 | °C | ISO 75 |
| Hardness | 35 Min | Barcol | ASTM D 2583 |

*100gr resin with cobalt octoate 1% metal : 1.5% and MEKP: 1.5% Post cure: 24 hours at room temperature and 2 hour at 80 °C.