

# Product Data Sheet

## Synolite 8388-I-1

### Chemical/physical nature

Synolite 8388-I-1 is an unsaturated polyester resin, dissolved in styrene.

Synolite 8388-I-1 is thixotropic, pre-accelerated and contains a colour change indicator.

### Major applications

Synolite 8388-I-1 is suitable for hand lay up and spray up.

### Principal properties

Key properties of Synolite 8388-I-1 are:

- very good handling also on vertical surfaces
- very good wetting of fiber glass
- low print through

Synolite 8388-I-1 contains an additive that makes turn the resin colour from green to yellow-brown when blended with catalyst.

It has been designed especially for applications in boat building industry.

### Approvals

Synolite 8388-I-1 is approved for the use in boat building by Registro Italiano Navale (R.I.Na)..

### Product specifications upon delivery

Property	Range	Unit	TM
Solids content, IR	61.5 - 64.5	%	2033
Gel time from 25 to 35°C	14 - 18	minutes	2625
Peak temperature	120 - 140	°C	2625
Cure time from 25°C to peak	24 - 32	minutes	2625
Appearance	Opalescent	-	2265
Stability	> 120	minutes	2300C
Viscosity, 20 s-1	370 - 470	mPa.s	2313
Viscosity, 50 s-1	310 - 370	mPa.s	2313
Viscosity, 250 s-1,	250 - 290	mPa.s	2313

### Remarks

Viscosity measurement: Physica MC1+ / Z2 / 23°C  
Curing conditions at 25°C: 100g resin + 2.0g Butanox M50.

### Properties of the resin (typical values)

Property	Value	Unit	TM
Flash point	33	°C	2800
Stability, no init., dark, 20°C	6	months	-

### Properties of cast unfilled resin (typical values)

Property	Value	Unit	TM
Hardness	35	Barcol	2604
Tensile strength	55	MPa	ASTM D638
Tensile E-modulus	3.2	GPa	ASTM D638
Elongation at break	2.5	%	ASTM D638
Heat Deflection Temperature (HDT)	70	°C	ASTM D648B
Water absorption after 24 hours	0.40	%	ASTM D570
Water absorption after 7 days	< 60	mg	ASTM D570
Asymptotic absorption	1.40	%	ASTM D570
Asymptotic weight loss	0.20	%	ASTM D570

### Curing conditions

After 16 hours post curing at 40°C.

### Processing

It is recommended to cure at temperatures between 15 and 30 °C with medium reactivity MEKP. In order to have longer geltime at summer conditions it is recommended to use low reactivity MEKP. Using of mixture of MEKP/AAP (acetylacetoneperoxide) allows obtaining shorter curing time with higher exotherm peak.

### Guidelines before use

The resin should be conditioned at 15°C minimum before use to obtain a sufficient cure when MEKP is used as a curing system. Stir the resin before use.

### Storage guidelines

The resin should be stored indoors in the original, unopened and undamaged packaging, in a dry place at temperatures between 5°C and 25°C. Shelf life is reduced at higher temperatures and the properties of the resin might change during storage. The shelf life of styrene containing unsaturated polyesters will be significantly reduced when exposed to light. Store in dark and in 100% light tight containers only. From DCPD resins it is known that skin formation occurs when exposed to air ventilation or replacement from the original packaging.

### Material Safety

A material safety data sheet of the product is available on request.

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### Test methods

Test methods (TM) referred to in the table(s) are available on request.

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