

SYNOLITE™ 8388-L-7

CHEMICAL/PHYSICAL NATURE

Synolite 8388-L-7 is a styrene containing resin , low viscous ,pre-accelerated , promoted, thixotropic, medium reactive DCPD polyester resin. A color change system is present for the benefit of spray-up applications.

MAJOR APPLICATIONS

Synolite™ 8388-L-7 has been developed for hand lay-up and spray-up applications.

Thick laminates can be made in one go due to low peak exotherm.

PRINCIPAL PROPERTIES

Synolite™ 8388-L-7 is used for the realization of laminates with a short demolding time, a good through cure , and also with a low exothermic development compared to a standard resin.

APPROVALS

Synolite™ 8388-L-7 complies according to Rina under the references Synolite™ 8388-I-1 and I-2.

PRODUCT SPECIFICATIONS UPON DELIVERY

| Property | Range | Unit | TM |
|----------------------------------|------------|----------|------|
| Appearance | hazy | - | 2265 |
| Solid content, IR | 61 - 63 | % | 2033 |
| Acid value determination diluted | 13 - 22 | mg KOH/g | 2401 |
| Gel time from 25 to 35°C | 18 - 22 | minutes | 2625 |
| Cure time from 25°C to peak | 50 - 60 | minutes | 2625 |
| Peak temperature | 40 - 80 | °C | 2625 |
| Viscosity, 2 sec -1 | 800 - 1150 | mPa.s | 2313 |
| Viscosity, 20sec-1 | 300 - 370 | mPa.s | 2313 |
| Viscosity, 250 sec-1 | 200 - 230 | mPa.s | 2313 |

REMARKS

Viscosity measurement :TM 2313 : at 23°C

Curing conditions :TM 2625: at 25°C,

100g resin + 2,0 g de Butanox M 50

PROPERTIES OF THE LIQUID RESIN (TYPICAL VALUES)

| Property | Value | Unit | TM |
|---------------------------------|------------|--------|------|
| Density, 23°C | Appr. 1100 | kg/m³ | 2160 |
| Color | Blue | - | 4073 |
| Flash point | Appr. 33 | °C | 2800 |
| Stability, no init., dark, 25°C | 3 | months | - |

PROPERTIES OF CAST UNFILLED RESIN (TYPICAL VALUES)

| Property | Value | Unit | TM |
|-----------------------------|-------|--------|-----------|
| Tensile strength | 66 | MPa | ISO 527-2 |
| Tensile E-modulus | 3,5 | GPa | ISO 527-2 |
| Elongation at break | 3 | % | ISO 527-2 |
| Heat Deflection Temp. (HDT) | 64 | °C | ISO 75-A |
| Hardness | 40 | Barcol | 2604 |

CURING CONDITIONS

Post cured 16 hours at 40°C.

Note : HDT = 78°C with 1,74 g de PMEC and 24 hours at 23 °C + 24 hours at 70 °C.

TYPICAL CURING CHARACTERISTICS

Barcol hardness development at 21°C with a laminate based on Synolite™ 8388-L-7 with 2 and 4 mat 450 g/m² (M5 type from Vetrotex) , glass/resin ratio = 1 / 2 and with 1,74 % weight of Butanox M 50.

Barcol Hardness (GYZ) 934-1) after

| | | |
|------------------|---------|---------|
| | 2 mats | 4 mats |
| - 2 hours | 0 | 0 - 10 |
| - 3 hours 30 min | 0 - 10 | 20 - 30 |
| - 4 hours | 10 - 20 | 20 - 30 |
| - 6 hours | 15 - 25 | 25 - 35 |
| - 24 hours | 30-40 | 35 - 45 |

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 mechanically before use. Do not use air bubbles to stir the resin.

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 30°C and the properties might change during storage. 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.

MATERIAL SAFETY

A Material Safety Data Sheet of this product is available on request.

TEST METHODS

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

Aliancys is a leading global company active in the sales of Quality Resins for composite applications. Together with its customers, Aliancys is pushing the limits of both composite part manufacturing and performance. Taking an integral approach to new product development, Aliancys is using its full expertise in resin chemistry, material science, and component manufacturing for shaping new applications in composites. So let's talk and increase our mutual business success, both today and tomorrow. More information on www.aliancys.com

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