

Synolite™ 1862-N-3

Iso/NPG resin for Solid Surface and Artificial Stone

Synolite™ 1862-N-3 is an unsaturated polyester based on Isophthalic acid and neopentylglycol, dissolved in styrene and acrylate.

Synolite™ 1862-N-3 has a medium reactivity and a medium viscosity.

Benefits

- High quality resin for solid surface applications
- Excellent mechanical properties
- High resistance to chemicals
- Good electrical properties

Major Applications

Synolite™ 1862-N-3 is intended for the use in artificial stone and solid surface applications, where good gloss, hydrolysis, scratch and thermal resistance are needed. The resin can also be used in glass-fiber reinforced moldings that exhibit excellent mechanical properties, high resistance to chemicals and good electrical properties.

Product Specifications

Property	Value	Unit	TM
Appearance	Clear		TM 2265
Solids content	55.5 - 58.5	%	TM 2033
Viscosity 23 °C, 100 s ⁻¹	630 - 800	mPa.s	TM 2013
Gel time 25 until 35 °C	11 - 15	min	TM 2625
Peak time	19 - 31	min	TM 2625
Peak temperature	150 - 180	°C	TM 2625

Viscosity measurement: Z2 /100 /23°C. Reactivity determined with 0.5 g Cobalt accelerator (1%) + 2.0 g (AAP) Acetylacetone peroxide added to 100g of resin.

Liquid			
Property	Value	Unit	TM
Density 23 °C	1100	kg/m ³	TM 2160
Flash point	33	°C	TM 2800
Stability (no initiator, dark, 25°C)	4	month	
Color	Yellowish	-	

Solid Unfilled			
Property	Value	Unit	TM
Tensile strength	70	MPa	ISO 527-2
Tensile modulus	3.5	GPa	ISO 527-2
Elongation at break	2.5	%	ISO 527-2
Flexural strength	130	MPa	ISO 178
Flexural E-Modulus	3.5	GPa	ISO 178
HDT	110	°C	ASTM D648
Impact strength	15	kJ/m ²	ISO 179
Water absorption	0.1	%	ISO R62

2.0 g high reactive MEKP and 1.0 g Accelerator 1% Co. solution added to 100 g resin. After 24 h at RT Post cured 24 h at 100 °C

Application Guidelines

Synolite™ 1862-N-3 does normally not exhibit tack-free cure. To ensure tack-free cure of surfaces exposed to air, suitable additives (e.g. a paraffin solution) should be added. The final state of cure may be optimized by post curing at elevated temperatures (e.g. 80 °C) for several hours.

The resin should be conditioned at a well-defined, application dependent temperature (usually 15 °C minimum for a MEKP/ Cobalt cure).

Storage Guidelines

The resin should be stored indoors in a dry place at temperature tight and undamaged packaging.

The properties of the resin may change slightly during storage.

Material Safety

A Safety Data Sheet (SDS) of this product is available on request.

Test Methods

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

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Contact us for more information

We will help you to choose the right resin solution.

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