

SYNOLITE™ 0175-N-1

CHEMICAL/PHYSICAL NATURE

Synolite™ 0175-N-1 is an unsaturated polyester resin based on dicyclopentadiene designed specifically for applications in hot press molding and pultrusion. Typical applications of Synolite™ 0175-N-1 are in the field of electrical engineering, building and transport.

PRINCIPAL PROPERTIES

Key properties of the Synolite™ 0175-N-1 resin are optimal wetting of the glass fiber, medium reactivity, good mechanical properties and a high HDT. To obtain the best results with Synolite™ 0175-N-1 it is necessary to choose the optimal curing system and processing temperature for the application.

PRODUCT SPECIFICATIONS UPON DELIVERY

Property	Range	Unit	TM
Viscosity, 23°C	330 - 430	mPa.s	2013
Solids content, IR	64 - 67	%	2033
Stability	> 210	Minute	2300C
Appearance	clear	-	2265
Gel time, 82°C	7.0 - 9.0	Minute	2253
Cure time	10.5 - 12.5	Minute	2253
Peak temperature	205 - 225	°C	2253

REMARKS

Curing conditions TM 2253:

100g resin + 2.0 g Perkadox CH 50.

Viscosity measurement: Physica MC1+ / Z2 / 100s-1.

PROPERTIES OF THE LIQUID 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
Tensile strength	60	MPa	ASTM D638
Tensile E-modulus	3.7	GPa	ASTM D638
Elongation at break	2.5	%	ASTM D638
Heat Deflection Temperature (HDT)	>95	°C	ASTM D648B

CURING CONDITIONS

After 3 hours post curing at 100°C.

GUIDELINES BEFORE USE

Before use, the resin should be conditioned at a well-defined, application dependent temperature (usually 15°C minimum for a MEKP / Co cure). Stir the product before blending.

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 monomer 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.

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PRODUCT INQUIRY? PLEASE CLICK HERE

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