

Product Data Sheet

Synolite 1717-N-1

Major applications

The Synolite 1717-N-1 is recommended for contact, spray-up and roll-up applications.

Principal properties

The Synolite 1717-N-1 is an unsaturated polyester resin based on isophthalic acid in solution with styrene.

It has a good chemical stability with water, acids and hydrocarbons. Its heat deflection temperature is high and its reactivity is medium.

Product specifications upon delivery

Property	Range	Unit	TM
Viscosity, 23°C	330 - 420	mPa.s	2013
Solids content, IR	55 - 58	%	2033
Gel time from 25 to 35°C	21 - 27	minutes	2625
Cure time from 25°C to peak	38 - 46	minutes	2625
Peak temperature	135 - 155	°C	2625

Remarks

Viscosity: 23°C, Physica, Sp. Z2, 100 s⁻¹

Curing conditions

Gel test at 25°C using 1.00 g cobalt octoate at 1 % (*) and 1.50 g methyl ethyl ketone peroxide at 50 % (**) with 100 g resin.

(*) NL 49 - AKZO Nobel

(**) Butanox M50 - AKZO Nobel

Properties of the liquid resin (typical values)

Property	Value	Unit	TM
Density, 25°C	appr. 1100	kg/m ³	2160
Flash point	appr. 33	°C	2800
Stability, no init., dark, 25°C	6	months	-

Properties of cast unfilled resin (typical values)

Property	Value	Unit	TM
Tensile strength	65	MPa	ISO 527-2
Tensile E-modulus	3.6	GPa	ISO 527-2
Elongation at break	3.5	%	ISO 527-2
Flexural strength	120	MPa	ISO 178
Flexural E-Modulus	3.6	GPa	ISO 178
Heat Deflection Temp. (HDT)	105	°C	ISO 75-A

Properties of woven roving laminates

Property	Value	Unit	TM
Glass content	30	%	-
Tensile strength	125	MPa	ISO 527-2
Tensile E-modulus	7.8	GPa	ISO 527-2
Flexural strength	220	MPa	ISO 178

Curing conditions

Glass content: 4 mats 450 g/m²

Postcure: 24 hours at room temperature, 2 hours at 80°C and 3 hours at 110°C

Guidelines before use

Before use, the resin should be conditioned at a well defined, application dependant 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. 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 for the product is available on request.

Test methods

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

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