

NORPOL FI-177

DESCRIPTION

NORPOL FI-177 is a low exotherm, light-weight sandwich adhesive with high tensile elongation based on isophthalic acid/NPG.

The sandwich adhesive has a medium high viscosity and is primarily intended for bonding butt joints of cross-linked PVC foam sheets.

NORPOL FI-177 is intended for filling joints from 1 - 20 mm in between sandwich core materials without excessive heat generation.

NORPOL FI-177 is pre-accelerated and changes colour from light blue to white shortly after mixing with peroxide.

TYPICAL PROPERTIES

PHYSICAL DATA IN LIQUID STATE AT 23°C

Properties	Unit	Value	Test method
Viscosity - Brookfield HBT sp. TB/5 rpm	mPa·s(cP)	120000-190000	ASTM D 2196-86
Density	g/cm ³	0.50-0.60	ISO 2811-2001
Gel time: 1.5% NORPOL PEROXIDE 15	minutes	35-45	G020
Peak exotherm			
1.5 % NORPOL PEROXIDE 15	°C	45-55	*
Storage stability from date of manufacture	months	6	G180

* Adhesive's peak exotherm as measured in a groove in PVC foam measuring 20 x 20 x 150 mm.

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TYPICAL NON-REINFORCED CASTING PROPERTIES

Properties	Unit	Value	Test method
Tension test in flatwise plane	MPa	10-11	ASTM C 297-80
PVC-core (200 kg/m ³) bonded with FI-177	MPa	4.5 (PVC-fracture)	ASTM C 297-80
Compressive strength (5 % deform.)	MPa	17	ISO 604-1973
Tensile strength	MPa	9	ISO 527-1993
Tensile modulus	MPa	550	ISO 527-1993
Tensile elongation			
- at - 10°C	%	1.8 ± 0.4	ISO 527-1993
- at 0°C	%	2.0 ± 0.4	ISO 527-1993
- at 23°C	%	4.3 ± 0.9	ISO 527-1993
- at 50°C	%	12.0 ± 2.5	ISO 527-1993
Linear shrinkage	%	1.6	ASTM D 2566-69

STORAGE

To ensure maximum stability and maintain optimum resin properties, resins should be stored in closed containers at temperatures below 24°C/75°F and away from heat ignition sources and sunlight. Resin should be warmed to at least 18°C/65°F prior to use in order to assure proper curing and handling. All storage areas and containers should conform to local fire and building codes. Copper or copper containing alloys should be avoided as containers. Store separate from oxidizing materials, peroxides and metal salts. Keep containers closed when not in use. Inventory levels should be kept to a reasonable minimum with first-in, first-out stock rotation.

Additional information on handling and storing unsaturated polyesters is available in Reichhold's application bulletin "Bulk Storage and Handling of Unsaturated Polyester Resins." For information on other Reichhold resins or initiators, contact your sales representative or authorized Reichhold distributor.

SAFETY

READ AND UNDERSTAND THE MATERIAL SAFETY DATA SHEET BEFORE WORKING WITH THIS PRODUCT

Obtain a copy of the material safety data sheet on this product prior to use. Material safety data sheets are available from your Reichhold sales representative. Such information should be requested from suppliers of all products and understood prior to working with their materials.

DIRECTLY MIXING ANY ORGANIC PEROXIDE WITH A METAL SOAP, AMINE, OR OTHER POLYMERIZATION ACCELERATOR OR PROMOTER WILL RESULT IN VIOLENT DECOMPOSITION