REICHHOLD

PRODUCT BULLETIN

November 2005

NORPOL FI-169

DESCRIPTION

NORPOL FI-169 is a general multi-purpose bonding paste based on isophthalic polyester . Recommended thicknesses in the joint is 2- 9 mm .
NORPOL FI-169 is preaccelerated and is changing colour from bluish green to brownish grey <5min. after the admixing of peroxide.
NORPOL FI-169 is suitable for machine application. We recommend to run tests with the machine before starting the bonding job to ensure proper admixing of the peroxide.

TYPICAL PROPERTIES

PHYSICAL DATA IN LIQUID STATE AT 23°C

Properties	Unit	Value	Test method
Viscosity - Cone & Plate - Brookfield HBT sp. TB/5 rpm	 mPa·s(cP) mPa·s(cP)	 400-550 110000-130000	 ISO 2884-1999 ASTM D 2196-86
Density	g/cm³	1.3	ISO 2811-2001
Gel time: 1,5 % NORPOL PEROXIDE 1	minutes	38-48	G020
Reactivity-gel time *	min.	20-30	LM-003928
Reactivity -exotherm *	°C	90-130	LM-003928
Reactivity - 25°C -exotherm *	min.	100-120	LM-003928
Acid number ,max	mgKOH/g	12	ISO 2114-1996
Styrene content	%	37 +/-2	B070
Flash point	°C	32	ASTM D 3278-95
Storage stability from date of production	months	6	G180

*1,5% NORPOL PEROXIDE 1

TYPICAL NON-REINFORCED CASTING PROPERTIES

Fully cured

Properties	Unit	Value	Test method
Tensile strength	MPa	35	ISO 527-1993
Tensile elongation	%	1,5	ISO 527-1993
Tensile modulus	MPa	3700	ISO 527-1993
Heat distortion temp.	°C	62	ISO 75-1993
Linear shrinkage	%	2,3	ASTM D 2566-69
Hardness Barcol , 934-1, min.		30-40	ASTM D 2583-99

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TYPICAL NON-REINFORCED CASTING PROPERTIES
Cured 24 h at RT + 24 h at 50°C

Properties	Unit	Value	Test method
Tensile strength	MPa	32	ISO 527-1993
Tensile elongation	%	1,5-1,7	ISO 527-1993
Tensile modulus	MPa	3500	ISO 527-1993
Flexural strength	MPa	57	ISO 178-2001
Flexural modulus	MPa	3200	ISO 178-2001
Heat distortion temp.	°C	60	ISO 75-1993
Linear shrinkage	%	2,0-2,5	ASTM D 2566-69
Barcol hardness, min.		35	ASTM D 2583-99
Shore D after 4 hours curing, min.		60	LM-003928
Strength build up, min.	Nm	35	LM-003928
Coefficient of thermal expansion(-40to+60°C)	°C -1	<65*10-6	DIN 53752

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