

October 2012

HYDREX[®] 200-800

Isophthalic /NPG resin

DESCRIPTION

HYDREX[®] 200-800 is an advanced, low reactive isophthalic/neopentylglycol polyester resin with generally good mechanical properties, impact strength in particular.

HYDREX[®] 200-800 has high tensile elongation and very low water absorption compared to conventional isophthalic and iso/NPG polyester resins.

APPLICATION

HYDREX[®] 200-800 is especially formulated to give an optimum bonding to glass and aramide fibres, and is recommended for constructions subjected to high static and/or dynamic loads.

HYDREX[®] 200-800 is thixotropic and accelerated and is suited for hand lay-up and spray-up application.

HYDREX[®] 200-800 has a low-exothermic accelerator system which is adjusted for laminate thickness 4-8 mm applied wet-on-wet.

When laminating on insulating materials (e.g. sandwich constructions) a laminate thickness of 2-5 mm is recommended.

FEATURES

- High strength and toughness
- Excellent hydrolytic stability
- Versatile
- Excellent compatibility to reinforcements
- Approvals

BENEFITS

- Good mechanical properties
- High elongation and good crack resistance
- Good fatigue resistance
- Very low water absorption
- Suitable for hand lay-up and spray-up
- Compatible with both glass and aramide fibres
- Det norske Veritas, DNV; Grade 1

The information herein is to help customers determine whether our products are suitable for their applications. Our products are intended for sale to industrial and commercial customers. We request that customers inspect and test our products before using them to satisfy themselves as to contents and suitability. We warrant that our products will meet our written specifications. **Nothing herein shall constitute any other warranty express or implied, including any warranty of merchantability or fitness for a particular purpose**, nor is protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials, and in no event shall we be liable for special, incidental, or consequential damages.

TYPICAL PROPERTIES**PHYSICAL DATA IN LIQUID STATE AT 23°C**

Properties	Unit	Value	Test method
Viscosity - Brookfield LVF sp. 2/12 rpm - Cone & Plate	mPa·s(cP) mPa·s(cP)	1100-1300 270-300	ASTM D 2196-86 ISO 2884-1999
Density	g/cm ³	1.06 ± 0.02	ISO 2811-2001
Acid number (max.)	mgKOH/g	8-15	ISO 2114-1996
Styrene content	% weight	47.5 ± 2	B070
Flash point	°C	32	ASTM D 3278-95
Gel time: 1% NORPOL® PEROXIDE 1	minutes	35-45	G020
Storage stability from date of manufacture	months	6	G180

TYPICAL NON-REINFORCED CASTING PROPERTIES

Fully post-cured.

Properties	Unit	Value	Test method
Density	g/cm ³	1.16	
Tensile Strength	MPa	73	ISO 527-1993
Tensile Modulus	MPa	3100	ISO 527-1993
Tensile Elongation	%	6.5	ISO 527-1993
Flexural Strength	MPa	135	ISO 178-2001
Flexural Modulus	MPa	3000	ISO 178-2001
Impact Strength, Charpy P4J	mJ/mm ²	18	
Heat Distortion Temperature	°C	90	ISO 75-1993
Water Absorption after 28 days in dist.water	%	0.50	ISO 62-1999
Hardness, Barcol 934-1	-	35	ASTM D 2583-99

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