

DION[®] FR 850-800

DESCRIPTION

DION[®] FR 850-800 is a fire retardant isophthalic polyester resin containing aluminatrihydrate. The resin is accelerated and thixotropic.

DION[®] FR 850-800 is specially suitable for the production of articles where reduced smoke emission in addition to fire retardant properties is required.

DION[®] FR 850-800 is suitable for hand lay-up and spray-up application as well as machine processing. Prolonged storage or unfavourable storing conditions may cause some separation, hence agitation of the resin before use is recommended.

TYPICAL PROPERTIES

PHYSICAL DATA IN LIQUID STATE AT 23°C

Properties	Unit	Value	Test method
Viscosity			
- Brookfield LVF sp. 2/12 rpm	mPa s(cP)	1400-1800	ASTM D 2196-86
- Cone & Plate	mPa s(cP)	350-400	ISO 2884-1999
Density	g/cm ³	1.32	ISO 2811-2001
Acid number (max.)	mgKOH/g	10	ISO 2114-1996
Styrene content	% weight	31 ± 2	B070
Flash point	°C	32	ASTM D 3278-95
Gel time: 1% NORPOL PEROXIDE 1	minutes	40-50	G020
Storage stability from date of manufacture	months	6	G180

The information herein is general information designed to assist customers in determining whether our products are suitable for their applications. Our products are intended for sale to industrial and commercial customers. We require customers to inspect and test our products before use and to satisfy themselves as to contents and suitability for their specific applications. 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 any protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is limited to replacement of our materials and in no event shall we be liable for special, incidental or consequential damages.

TYPICAL NON-REINFORCED CASTING PROPERTIES

Fully postcured

Properties	Unit	Value	Test method
Tensile strength	MPa	55	ISO 527-1993
Tensile modulus	MPa	6500	ISO 527-1993
Tensile elongation	%	1.2	ISO 527-1993
Flexural strength	MPa	90	ISO 178-2001
Flexural modulus	MPa	6200	ISO 178-2001
Impact strength, P 4 J	mJ/mm ²	7.5	ISO 179-2001
Volume shrinkage	%		ISO 3521-1997
Heat distortion temp.	°C	88	ISO 75-1993
Hardness Barcol	934-1	50	ASTM D 2583-87
FIRE TESTS			
Laminate: 30-35% Glassfibre			
- Oxygen index (approx.)	%	25	ISO 4589-1996
- Average ext.of burning (AEB)	mm	10	ASTM D 635-98
- Average time of burning (ATB)	sec.	60	ASTM D 635-98
- Surface spread of flame		Class 2	BS 476 part 7 1997

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