REICHHOLD
A DIC GROUP COMPANY

PRODUCT BULLETIN

Creatively connecting knowledge and application.

DION FR® 7767

FLAME-RETARDANT RESIN*

DESCRIPTION

DION FR® 7767 is a specialty flame-retardant isophthalic polyester resin that features an ASTM E-84 Class 1 flame spread without antimony trioxide. DION FR® 7767 provides excellent fiberglass wet-out and positive resin curing performance, making it ideal for a variety of demanding flame-retardant FRP applications.

FEATURES	BENEFITS
• Special flame-retardant formulation	• Can achieve ASTM E-84 Class 1 flame spread without additives
• Corrosion Resistant	• Ideal for a variety of hood and duct applications
• Excellent fiberglass wet-out	• Minimizes voids and resin-starved areas • Easy maintenance of resin-to-glass ratio • Short turnover and fabrication times
• Manufactured using statistical process and quality controls	• Consistent performance, batch to batch

** DION FR® polyester resins will burn if provided with a sufficient amount of heat and oxygen. The degree of flame-retardancy of laminates prepared using DION FR® resins has been characterized using several standard ASTM test methods. Testing has been performed under strictly controlled conditions. The behavior of composites made using DION FR® resins may vary in an actual fire situation.*

CORROSION HOTLINE: For more information on this and other corrosion-resistant resins, call our CORROSION HOTLINE 1-800-752-0060 at our corporate laboratory in Research Triangle Park, North Carolina.

The information herein is to help customers determine whether this product is 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 warranty 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 clains is replacement of our materials, and in no event shall we be liable for special, incidental, or consequential damages.

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TYPICAL LIQUID PROPERTIES[1] @ 25ºC

Version	Viscosity, CPS*	Thix Ratio*	Gel Time minutes*	Gel-Peak minutes*	Peak Exo, ºF	% N.V.	S.G.	Shelf Life, Min.
DION FR® 7767-00	600	2.6	20**	35	325	60	1.26	3 months
DION FR® 7767-10	600	2.6	35**	55	325	60	1.26	3 months

Seta Closed Cup Flash Point of all DION FR® 7767 resins is 31.6ºC (89ºF)

*Brookfield RVF viscometer, #2 spindle at 20 rpm 2:20 rpm ratio for thix index
**with 1.5 wt% Superox® 46709, 100g mass

Minimum shelf life performance refers to product in the original, unopened container. Shelf stability is affected by storage conditions. See the "Storage" section of this bulletin for further details.

TYPICAL MECHANICAL PROPERTIES[1]

	ASTM TEST METHOD	CLEAR CASTING
Barcol Hardness	D-2583	48
Heat DeflectioniTemperature, °C {°F}	D-648	78 {172}
Flexural Strength, psi	D-790	14,200
Flexural Modulus, x 10^5 psi	D-790	5.4
Tensile Strength, psi	D-638	8,000
Tensile Modulus, x 10^5 psi	D-638	5.4
Tensile Toughness, in-lb/in^3	D-638	69
Tensile Elongation @ Yield, %	D-638	1.6
Water Absorption, 24 hr. @ RT, % weight gain	D-570	0.12
Water Absorption, 2 hr. @ 100°C, % weight gain	D-570	0.63

FLAMMABILITY TEST DATA

	DION FR® 7767 3-Ply, 1.5 oz mat Laminates (no antimony)
ASTM E-84 Tunnel Test	• Flame Spread Index - 20 (Class I) • Smoke Development Index - 820
ASTM E-162 Tunnel Test	• Flame Spread Index 28
ASTM D-635	• Average Time of Burning (ATB) 5.6 seconds • Average Extent of Burning (AEB) 10 mm

[1] *Properties reported in this bulletin are typical of those obtained in controlled laboratory tests and are provided as guidelines.*

STORAGE

To ensure maximum stability and maintain optimum resin properties, resins should be stored in closed containers at temperatures below 75ºF (25ºC) and away from heat sources and sunlight. All storage areas and containers should conform to local fire and building codes. Drum stock should be stored away from all sources of flame or combustion. 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.

STANDARD PACKAGE

Non-returnable 55-gallon metal drums (459 lbs. net) or 40,000-44,000-lb. tank truck.

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 before use. Material safety data sheets are available from your Reichhold sales representative. Such information should be requested from suppliers of any chemical and understood before working with the material.

TECHNICAL SUPPORT

Reichhold's technical support staff has extensive practical experience with polyesters and manufacturing techniques. Please do not hesitate to request our assistance through your sales representative.

Copies of test methods used to determine reported properties are available through your Reichhold sales representative.

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