PRODUCT BULLETIN

June 2020

DION® FR 7772 Series

Flame Retardant Resin

DESCRIPTION

DION® FR 7772 Series are specialty flame-retardant, halogenated, unsaturated polyester resins that feature and ASTM E-84 Class I flame spread without flame retardant additives. DION® FR 7772 resins provide excellent fiberglass wet-out and positive resin curing performance, making them ideal for a variety of demanding flame-retardant FRP applications.

BENEFITS & FEATURES

- Batch-to-batch consistency and uniformity from production utilizing Statistical Process Control (S.P.C) & Statistical Quality Control (S.Q.C) techniques
- Complies with SCAQMD Rule 1162
- Can achieve ASTM E-84 Class I flame spread without additives
- Ideal for select hood and duct applications to mild chemical and heat environments
- Excellent fiberglass wet-out minimizes void and resin-starved areas, which helps maintain resin-to-glass ratios, resulting in shorter turnover and fabrication times

PROPERTIES – LIQUID

Property(1)	Unit	FR 7772-00	FR 7772-15
Appearance	-	Amber-Orange/Hazy	Amber-Orange/Hazy
NVM	%	57.0	57.0
Viscosity(2)	cps	650	750
Thix Index	-	2.6 (min)	2.6 (min)
Gel Time(3)	minutes	20.0	15.0
Gel to Peak	minutes	10.0	10.0
Peak Exotherm	°C/°F	150/302	150/302
Specific Gravity	-	1.19	1.19
Flash Point (Seta Closed Cup)	°C/°F	32/89	32/89

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer LVF Spindle #3 at 30 RPM
3) 1.25 g of MEKP-900 per 100 g of resin

PROPERTIES – PHYSICAL

Property[1]	Unit	Neat Resin Casting[2]	Test Method
Tensile Strength	psi	9,000	ASTM D 638
Tensile Modulus	psi	450,000	ASTM D 638
Tensile Elongation	%	2.4	ASTM D 638
Flexure Strength	psi	19,000	ASTM D 790
Flexure Modulus	psi	520,000	ASTM D 790
Heat Deflection Temperature	°C/°F	66/151	ASTM D 648
Hardness, Barcol Model 934-1	HB	37	ASTM D 2583

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.
2) Initiator type and ratio: MEPK-900 @ 1.25%; Cure conditions: 16 hrs. @ 73°F; Post-cure conditions: 2 hrs. @ 150°F, 2 hrs. @ 250°F

PROPERTIES - OTHER

Flammability Test Data

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.

VMMMV 3 ply 1.5 oz. mat	
ASTM E-84 Tunnel Test	• Flame Spread Index – 15 (Class I)

APPLICATION

Each user must determine the suitability of this product to his/her particular mode of operation and intended end-use application. A Polynt representative will be available to assist in the proper selection of all Polynt-Reichhold products available for commercial use.

SHELF LIFE & STORAGE

The shelf life of DION® FR 7772 is 120 days from the date of manufacture from Polynt. To maximize usage life and maintain optimum properties, resins and gel coats should be stored in the original closed container at temperatures below 23°C/73°F and away from ignition sources and sunlight. Keep containers sealed to prevent moisture pick-up and monomer loss.

SAFETY & WARRANTY

To receive a copy of our safety and warranty information, please email safetyandwarranty@polynt.com.