PRODUCT BULLETIN

September 2020

752-4423, 752-4425, 752-4427

Flame-Retardant Unsaturated Polyester Resins

DESCRIPTION

752-4423, 752-4425, and 752-4427 resins are pre-promoted, thixed, unsaturated polyester laminating resins formulated for Class 1 flame retardance. These resins also meet the requirements of military spec MIL-R-7575 and are listed under UL 94V-0 and 5VA.

BENEFITS & FEATURES

- Meets ASTM E84 Class 1 (Flame spread < 25)
- Complies with MIL-R-7575
- Listed under UL 94V-0 and 5VA (minimum of 125 mil (0.125 in.) thickness.)
- Complies with SCAQMD Rule 1162
- Good wet-out
- Good air release
- Non-draining

PROPERTIES – LIQUID

Property(1)	Unit	752-4423	752-4425	752-4427
Appearance	-	Green	Green	Green
NVM	%	61	-	60.5
Viscosity(2)	cps	510	500	500
Thix Index (3)	-	3.0	3.0	3.0
Gel Time(4)	minutes	11	18	28
Gel to Peak	minutes	8.3	12	15.5
Peak Exotherm	°C/°F	166/330	160/320	157/315
Weight per Gallon	lbs/gal	10.7	20 (Max.)	10.6
Styrene Content	%	36	37	37

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer RVT Spindle #3 at 50 RPM
3) Brookfield Viscometer RVT Spindle #3 at 5/50 RPM
4) 1.0% United Initiators Norox® MEKP-925

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PROPERTIES – PHYSICAL

Property[1]	Unit	Neat Resin Casting[2]	Laminate[3]	Test Method
Tensile Strength	psi	9,000	22,000	ASTM D 638
Tensile Modulus	psi	547,000	1,536,000	ASTM D 638
Tensile Elongation	%	1.90	2.07	ASTM D 638
Flexure Strength	psi	20,000	30,000	ASTM D 790
Flexure Modulus	psi	576,000	1,38,0000	ASTM D 790
Heat Deflection Temperature	°C/°F	79/175	-	ASTM D 648
Hardness, Barcol Model 934-1	HB	45	55	ASTM D 2583

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.
2) Castings - 0.125" thickness. Resin initiated with United Initiators Norox® MEKP-925
3) Laminate - 0.125" thickness 33% glass

APPLICATION

Refer to Polynt's Composites Applications Guide ("Cookbook") for equipment and application recommendations. 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 752-4423, 752-4425, and 752-4427 resins is 180 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.

RELATED PRODUCTS

752-4420-20 (gel time 20 minutes, RTM version)

SAFETY & WARRANTY

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