PRODUCT BULLETIN

May 2023

752-4420 Series

Flame-Retardant Unsaturated Polyester Resins

DESCRIPTION

752-4420 Series resins are flame-resistant resins formulated for use in non-thixed applications, such as RTM, and are promoted for room temperature cure with methyl ethyl ketone peroxide (MEKP) initiator. They are formulated to a Class 1 flame spread resin according to ASTM E84 and are listed on UL 94's V-0 and 5VA and meets MIL R-7575. These resins also comply with SCAQMD Rule 1162 monomer content flame-retardant resin systems. Suggested applications include small to large job parts, difficult to process job parts, mannequins, furniture, infusion, and RTM.

BENEFITS & FEATURES

- Excellent mechanical properties
- Medium trim window
- Good wet-out
- Pre-promoted
- UL V-0 and 5VA listed product
- ASTM E84 Class 1 flame-retardant

PROPERTIES – LIQUID

Property[1]	Unit	752-4420-00	752-4420-20	752-4420-09H
Appearance	-	Yellow	Green	Green
NVM	%	60	61	66
Viscosity	cps	200[2]	190[2]	525[3]
Gel Time	minutes	20[4]	20[4]	8[5]
Gel to Peak	minutes	16 (Max.)	10	-
Peak Exotherm	°C/°F	159/318	160/320	-
Weight per Gallon	lbs/gal	10.7	10.7	11.10
Styrene Content	%	36.5	36	30.1

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer RVT Spindle #3 at 50 RPM
3) Brookfield Viscometer LVT Spindle #3 at 60 RPM
4) 1.0% MEKP-925
5) 1.25% Luperox® DDM-9

PROPERTIES – PHYSICAL

Property[1]	Unit	0.125" Casting, MEKP-925	0.125" 33/67 Glass/Resin Casting	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	33,000	ASTM D 790
Flexure Modulus	psi	576,000	1,380,000	ASTM D 790
Heat Deflection Temperature	°C/°F	83/182	-	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.

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 products available for commercial use.

SHELF LIFE & STORAGE

The shelf life of 752-4420 Series 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.

SAFETY & WARRANTY

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