PRODUCT BULLETIN

February 2024

HYDREX® 100 32840 Series

100% Vinyl Ester Infusion Resins

DESCRIPTION

HYDREX® 100 32840 Series resins are pre-promoted, non-thixotropic, vinyl ester resins suitable for closed mold applications including RTM, LRTM, vacuum infusion, etc. Suggested applications include fiberglass tooling, general marine closed mold parts, and other closed mold applications. HYDREX® 100 32840 Series resins are formulated for curing at room temperature with United Initiators Norox® MCP-75 or United Initiators Norox® CHP blend initiators without foaming.

BENEFITS & FEATURES

- Batch-to-batch consistency and uniformity from production utilizing Statistical Process Control (S.P.C) & Statistical Quality Control (S.Q.C) techniques
- Lower exotherm versions for thicker laminates
- Superior blister resistance due to lower water absorption rate
- Excellent resistance to impact, thermal and demolding cracks from high strength and toughness
- Minimized print-through for smooth surfaces due to improved profile
- Minimized voids and resin-starved areas with easy maintenance of resin-to-glass ratio due to rapid wetting-out of reinforcements
- Retention of physical properties at elevated temperatures from high heat distortion temperature

PROPERTIES – LIQUID

Property(1)	Unit	32840-30	32840-35	32840-55
Appearance	-	Amber	Amber	Amber
NVM	%	53.0	54.5	54.5
Viscosity(2)	cps	100	125	125
Gel Time(3)	minutes	30	35	55
Gel to Peak	minutes	25	22.5	35
Peak Exotherm	°C/°F	165/329	170/338	163/325
Specific Gravity	g/cm^3	1.055	1.055	1.055
Flash Point (Seta Closed Cup)	°C/°F	32/89	32/89	32/89

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer LVF Spindle #2 at 60 RPM
3) 1.75 % United Initiators Norox® MCP-75

PROPERTIES – PHYSICAL

Property[1]	Unit	Neat Resin Casting[2]	Test Method
Tensile Strength	psi	11,000	ASTM D 638
Tensile Modulus	psi	560,000	ASTM D 638
Tensile Elongation	%	3.7	ASTM D 638
Flexure Strength	psi	18,000	ASTM D 790
Flexure Modulus	psi	500,000	ASTM D 790
Heat Deflection Temperature	°C/°F	88/190	ASTM D 648
Hardness, Barcol Model 934-1	HB	44	ASTM D 2583
Water Absorption - 2 hours at 212°F - 24 hours at 73°F	 % gain % gain	 0.17 0.16	ASTM D 570
Specific Gravity	g/cm^3	1.15	ASTM D 256

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.
2) 1.75% United Initiators Norox® MCP-75; Post-cured 16 hrs. @ 73°F, 2 hrs. @ 140°F

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 HYDREX® 100 32840 Series resins 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.