PRODUCT BULLETIN

March 2021

STYPOL® 040-4331, 040-4332, 040-4334

Isophthalic Laminating Resins

DESCRIPTION

STYPOL® 040-4331, 040-4332, and 040-4334 are isophthalic laminating resins. They are pre-promoted, thixotropic, isophthalic polyester resins containing styrene monomer. They differ in gel time, ranging from 18 to 27 minutes. STYPOL® 040-4331, 040-4332 and 040-4334 are especially formulated for hand lay-up or spray-up for high heat resistance and/or corrosion resistant applications.

BENEFITS & FEATURES

- Outstanding chemical resistance
- High impact resistance
- Good heat resistance

PROPERTIES – LIQUID

Property[1]	Unit	040-4331	040-4332	040-4334
Viscosity[2]	cps	400	400	400
Thix Index[3]	-	2.9	2.9	2.8
Gel Time[4]	minutes	27	23	18
Gel to Peak	minutes	8	8	8
Peak Exotherm	°C/°F	207/405	207/405	207/405

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer LVF Spindle #2 at 60 RPM
3) Brookfield Viscometer LVF Spindle #2 at 6/60 RPM
4) 1.25% Arkema Luperox® DDM-9

PROPERTIES – PHYSICAL

Property[1]	Unit	Neat Resin Casting[2]	Laminate	Test Method
Tensile Strength	psi	9,000	16,000	ASTM D 638
Tensile Modulus	psi	N/A	1,200,000	ASTM D 638
Tensile Elongation	%	N/A	1.8	ASTM D 638
Flexure Strength	psi	18,000	23,000	ASTM D 790
Flexure Modulus	psi	540,000	900,000 psi	ASTM D 790
Hardness, Barcol[2]	HB	48	50	ASTM D 2583
Heat Distortion at 264 psi Post-cured at 120°F Post-cured at 70°F	°C/°F	 97/207 87/189	 N/A N/A	ASTM D 648
Specific Gravity	g/cm^3	1.18	1.37	-
Water Absorption, 24 hours, 77°F	% gain	N/A	0.1	ASTM D 570
Glass Content	%	N/A	30	-

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.
2) First Barcol at 2.5 hours

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 STYPOL® 040-4331, 040-4332, and 040-4334 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.