PRODUCT BULLETIN

May 2020

STYPOL® 040-5722, 040-5739, 040-5845, 040-5931

Cultured Marble Casting Resins

DESCRIPTION

STYPOL® 040-5722, 040-5739, 040-5845, and 040-5931 are pre-promoted, low shrink, resilient resins, containing styrene monomer. They are especially designed for cultured marble casting applications.

STYPOL® 040-5722, 040-5739, 040-5845, and 040-5931 have exhibited their versatility in helping meet the thermal shock test requirements on finished parts. (See Property and Performance Standard ANSI Z124.3 as issued by the International Cast Polymer Association).

NOTE: Many factors other than resin influence the outcome of the ANSI Z124.3C Thermal Shock Test. Manufacturers should verify the performance of parts made using their specific processing conditions.

BENEFITS & FEATURES

- Low exotherm
- Excellent suspension of fillers
- Resistance to warping and cracking
- Minimal gel time drift

PROPERTIES – LIQUID

Property[1]	Unit	040-5722	040-5739	040-5845	040-5931
NVM	%	67	-	-	69
Viscosity	cps	1,600[4]	2,300[2]	2,300[2]	2,300[2]
Gel Time	minutes	17[5]	13[3]	20[3]	24[3]
Gel to Peak	minutes	14	-	-	-
Peak Exotherm	°C/°F	157/315	146/295	142/288	-

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer LV Spindle #3 at 12 RPM
3) 1% AKZO Cadox® M-50a
4) Brookfield Viscometer LV Spindle #3 at 30 RPM
5) 1.25% United Initiators Norox® MEKP-900

PROPERTIES – PHYSICAL

Property[1]	Unit	Neat Resin Casting	Test Method
Tensile Strength	psi	8,000	ASTM D 638
Tensile Elongation	%	1.8	ASTM D 638
Flexure Strength	psi	12,000	ASTM D 790
Flexure Modulus	psi	620,000	ASTM D 790
Heat Distortion, 264 psi	°C/°F	68/154	ASTM D 648
Hardness, Barcol Model	HB	42	ASTM D 2583

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.

APPLICATION

A typical formulation for STYPOL® 040-5739, 040-5845 and 040-5931 is shown below. The formulation is provided only as a reference. Each manufacturer will customize the formulation to fit his specific processing conditions.

Suggested Formations	STYPOL® 040-5739, 040-5845, 040-5931
Resin	23-25 parts by wt.
Calcium Carbonate (1)	25-27 parts by wt.
Calcium Carbonate (2)	50 parts by wt.
AKZO M-50a	1.0% based on resin

(1) Similar to #15 M, Georgia Marble Company
(2) Similar to 40-200, Georgia Marble Company

Test	Unit	Value
Room Temperature	°C/°F	24-27/75-80
Mix Temperature	°C/°F	27/80
Gel Time (1) (2)	minutes	15-19 minutes (25-30)
De-mold Time (2)	minutes	90 minutes
Peak Exotherm	°C/°F	52-60/125-140

(1) Catalyze resin, mix in one minute. Then add filler and mix 2 minutes.
(2) The gel time and demold time is for STYPOL® 040-5739. Other versions will have longer gel and demold times.

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® 040-5722, 040-5739, 040-5845, and 040-5931 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.