PRODUCT BULLETIN

May 2020

DION® 31020-03

Pultrusion Resin

DESCRIPTION

Dion® 31020-03 resin is a high-reactivity isophthalic resin designed for the pultrusion process. This resin is formulated for pultruded composites up to 3/8" thick with fiber-free surfaces at fast line speeds. Dion® 31020-03 resins can be processed with either radio-frequency-augmented cure or thermal-only pultrusion equipment.

BENEFITS & FEATURES

- Batch-to-batch consistency and uniformity from production utilizing Statistical Process Control (S.P.C) & Statistical Quality Control (S.Q.C) techniques
- Composites retain mechanical properties at elevated temperatures due to high heat distortion temperature
- Fast line speeds for composites up to 3/8" thick due to high reactivity

PROPERTIES – LIQUID

Property[1]	Unit	31020-03
Appearance	-	APHA 500 (Max)
NVM	%	67.0
Viscosity	cps	2,500[2]
SPI Gel Time[3]	minutes	3.5
SPI Cure	minutes	1.1
SPI Peak Exotherm	°C/°F	237/458
Specific Gravity	-	1.11
Flash Point (Seta Closed Cup)	°C/°F	32/89

1) All properties at 25°C/77°F unless otherwise noted
2) Brookfield Viscometer RVF Spindle #2 at 20 RPM
3) Initiated with 1% benzoyl peroxide crystals

PROPERTIES – PHYSICAL

Property[1]	Unit	Neat Resin Casting	Test Method
Tensile Strength	psi	8,000	ASTM D 638
Tensile Modulus	psi	550,000	ASTM D 638
Tensile Elongation	%	1.7	ASTM D 638
Flexure Strength	psi	17,000[2]	ASTM D 790
Flexure Modulus	psi	560,000[3]	ASTM D 790
Heat Deflection Temperature	°C/°F	113/236	ASTM D 648
Hardness, Barcol Model 934-1	HB	51	ASTM D 2583

1) Physical properties were determined using internal Polynt test methods that are similar to those listed above.
2) Flexural strength = 15,000 psi at 175°F
3) Flexural modulus = 400,000 psi at 175°F

APPLICATION

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 DION® 31020-03 resin 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.