

Product Information

Multi-Purpose DCPD Polyester Resin for Closed Mold Processing

TYPICAL LIQUID RESIN PROPERTIES*

	Nominal
Viscosity @ 77°F/25°C, Brookfield RVT Spindle #3 @ 20 rpm, cps	3,200
Non-Volatiles, %	70
Acid Number, mg KOH/g	20
Weight per Gallon, lbs./gal.	9.3

TYPICAL CURING PROPERTIES*

	Nominal
180°F/82°C SPI Gel Exotherm Test, 1% BPO	
150°F/66°C - 190°F/88°C, min	6.0
150°F/65.6°C - Peak, min	7.0
Peak Exotherm, °F/°C	450°F/232°C

TYPICAL CAST MECHANICAL PROPERTIES* (1) see back page

		Test Method
Tensile Strength, psi/MPa	6,500/44.8	ASTM D 638
Tensile Modulus, psi/GPa	590,000/4.1	ASTM D 638
Tensile Elongation, %	1.25	ASTM D 638
Flexural Strength, psi/MPa	11,700/80.7	ASTM D 790
Flexural Modulus, psi/GPa	620,000/4.3	ASTM D 790

*Typical properties are not to be construed as specifications.



DESCRIPTION

S905-70G is an unpromoted, high reactivity dicyclopentadiene (DCPD) polyester resin designed for a variety of closed mold applications.

FEATURES

- Contains renewable and/or recycled content.
- High reactivity DCPD chemistry
- Proven performer in a multitude of closed mold processes
- Computer controlled manufacturing provides consistent end-use performance and reduced scrap rates

APPLICATIONS

- Automotive and truck parts
- Sports equipment
- Tub and shower applications



EcoTek® S905-70G Polyester Resin



PERFORMANCE GUIDELINES

A. Keep full strength catalyst levels between 0.75% - 2.0% of the total resin weight.

B. Maintaining shop temperatures between 65°F/18°C and 90°F/32°C and humidity between 40% and 90% will help the fabricator make a high quality part. Consistent shop conditions contribute to consistent gel times.

STORAGE STABILITY

Resins are stable for three months from date of production when stored in the original containers away from sunlight at no more than 70°F/21°C. After extended storage, some drift may occur in gel time.

During the hot summer months, no more than two month's stability at 86°F/30°C should be anticipated.

SAFETY

See appropriate Material Safety Data Sheet for guidelines.

APPLICATION RECOMMENDATIONS

Blends of 50 to 80 percent S905-70G are thermoplastic shrink control additives, provide excellent surfaces, low shrinkage and dimensional control.

Low profile or Class A resins have reduced short and long term waviness and provide excellent shrinkage and dimensional control in SMC parts. It is important to realize, however, that secondary bonding characteristics of the products manufactured, whether they are adhered FRP to FRP or FRP to metals, and to other materials must be checked by the molder for all applications.

The test method should reflect adhesion failure mode on actual application, peel vs. shear, etc. The following parameters may also affect bonding performance: type of adhesive and adhesion application, type and amount of texture, substrate formulation and cure, part molding conditions, in-mold coating conditions, shop environmental conditions (humidity, temperature, dirt, grease and oil), interlaminar strength of substrate and other variables.

Contact your AOC sales representative for additional formulation recommendations.

ISO 9001:2008 CERTIFIED

The Quality Management Systems at every AOC manufacturing facility have been certified as meeting ISO 9001:2008 standards. This certification recognizes that each AOC facility has an internationally accepted model in place for managing and assuring quality. We follow the practices set forth in this model to add value to the resins we make for our customers.

FOOTNOTES

(1)

All tests at 77°F/25° and 50% relative humidity. Castings were post cured.



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The information contained in this data sheet is based on laboratory data and field experience. We believe this information to be reliable, but do not guarantee its applicability to the user's process or assume any liability for occurrences arising out of its use. The user, by accepting the products described herein, agrees to be responsible for thoroughly testing each such product before committing to production.

Our recommendations should not be taken as inducements to infringe any patent or violate any law, safety code or insurance regulation.

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