

Product Information

Polyester Resin for Closed Mold Processing and Pultrusion

TYPICAL CAST MECHANICAL PROPERTIES* (2) see back page

	Nominal	Test Method
Tensile Strength, psi/MPa	7,000/48.3	ASTM D 638
Tensile Modulus, psi/GPa	570,000/3.9	ASTM D 638
Tensile Elongation, %	1.4	ASTM D 638
Flexural Strength, psi/MPa	12,000/82.8	ASTM D 790
Flexural Modulus, psi/GPa	580,000/4.0	ASTM D 790
Heat Distortion Temperature °F/C° @ 264psi	292/144	ASTM D 648

*Typical properties are not to be construed as specifications

TYPICAL LIQUID RESIN PROPERTIES*

Viscosity @ 77°F/25°C, Brookfield RVT Spindle #3 @ 20 rpm, cps.	2,200
Weight Per Gallon @ 77°F/25°C	9.4lb/gal/1.13g/cc
Acid Number	18 mg/g KOH
Non-Volatiles, %	66.5
Color Gardner	2
Stability, 120°F/48.9°C	20 days

TYPICAL CURING PROPERTIES* (1) see back page

180°F/82°C SPI Gel Exotherm Test, 1 % BPO

	S342-2	S342	S342-1
150°F - 190°F/65.6-87.8°C (min)	30.0	4.5	39.0
150°F/65.6°C - Peak (min)	31.5	6.0	45.0
Peak Exotherm, °F/°C	450/234	475/246	440/227



DESCRIPTION

S342 is a high reactivity propylene maleate polyester resin for closed mold processing. Molecular weight distribution is tightly controlled to yield consistent results during processing and in final part performance. S342 can be combined with a wide variety of low profile additives to yield excellent surface aesthetics.

FEATURES and BENEFITS

- High reactivity
- Precise molecular weight distribution
- Proven performance in SMC
- BMC and pultrusion applications
- Low color
- High gloss and excellent surface smoothness
- Designed for demanding cure and surface requirements such as short press cycle times and thin laminate pultrusion
- Allows high filler loadings yet workable mix viscosities

S342 Series Polyester Resin

PERFORMANCE GUIDELINES

A. Keep full strength catalyst levels between 1.0% - 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 six months from date of production when stored away from sunlight at no more than 70°F/21°C in the original containers. After extended storage, some drift may occur in gel time.

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

SAFETY

See appropriate Material Safety Data Sheet for guidelines.

ISO 9001:2000 CERTIFIED

The Quality Management Systems at every AOC manufacturing facility have been certified as meeting ISO 9001:2000 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)

The gel times shown are typical but may be affected by catalyst, and inhibitor concentrations and the temperature of the resin, mold and shop conditions. Variations in gelling characteristics can be expected between different lots of catalysts and at extremely high humidities. Pigment and fillers can retard or accelerate gelation. It is recommended that the fabricator check the gelling characteristics of a small quantity of resin under actual operating conditions prior to use.

(2)

All tests at 77°F/25°C and 50% relative humidity. All tests on unreinforced cured resin castings. Castings prepared using 1% BPO post cured for 2 hours at 250°F/121°C using AOC test method X-12Ab.



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