

# Pultru® P706-101 Polyester Resin

## Product Information

### Pultru® Multi-Purpose Isophthalic Polyester Resin

#### TYPICAL LIQUID RESIN PROPERTIES\*

	Nominal
Viscosity, Brookfield RTV Spindle #3 at 50 RPM, cps	3,050
Weight Per Gallon	9.5 lb./gal./1.14 gr./cc
Acid Number, Solids Basis	12 mg KOH/g
Styrene, %	29.5
Color Gardner (max)	3
Stability, 120°F	20 days

#### TYPICAL CURING PROPERTIES of Pultru® P706-201\* (1) see back page

SPI Gel time at 180°F/82.3°C, 1.0% BPO	
150-190°F/65.6-87.8°C, minutes	5.5
150°F to Peak, minutes	7.0
Peak Exotherm, °F/°C	420/215

#### TYPICAL CLEAR CAST MECHANICAL PROPERTIES\* (2) see back page

		Test Method
Tensile Strength, psi/MPa	10,500/72.4	ASTM D 638
Tensile Modulus, psi/GPa	440,000/3.03	ASTM D 638
Tensile Elongation, %	4.0	ASTM D 638
Flexural Strength, psi/MPa	19,000/131.0	ASTM D 790
Flexural Modulus, psi/GPa	480,000/3.3	ASTM D 790
Heat Distortion Temperature, °F/°C at 264 psi	174/79	ASTM D 648

\*Typical properties are not to be construed as specifications.

#### DESCRIPTION

AOC's Pultru® P706-101 is an un-promoted, medium reactivity, polyester resin that provides an excellent balance between processing, cost and performance.



#### BENEFITS

##### Wide Range of Processing Options

Pultru® P706-101 is ideally suited for use in Pultrusion, Compression, Injection, Transfer and Cold Press Molded applications.

##### Improved Line Speeds

Pultru® P706-101 is a shorter gel time version of P706 that allows higher line speeds in pultrusion.

##### Adaptability

Good stain and moisture resistance combined with excellent electrical properties allows designers to meet a broad spectrum of applications. Balanced chemistry results in tough polyester with excellent crack resistance.

##### The Choice for FDA Applications

The ingredients of Pultru® P706-201 comply with Title 21 CFR, parts 170-199 relative to FDA criteria.

##### Proven History

Pultru® P706-201 is a proven performer in a wide variety of appliance, electrical and construction applications.

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## PERFORMANCE RECOMMENDATIONS

A. Keep full strength catalyst levels between 0.5% - 1.5% 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 months stability at 86°F/30°C should be anticipated.

## SAFETY

See appropriate AOC MSDS for guidelines.

## ISO 9002 CERTIFIED

The Quality Management Systems at every AOC manufacturing facility have been certified as meeting ISO 9002 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, promoter and inhibitor concentrations and resin, mold and shop temperature. 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)

Based on tests at 77°F/25°C and 50% relative humidity. All tests performed on unreinforced cured resin castings. 1/8" castings were prepared using 1.0% BPO, post cured for 2 hours at 250°F/121°C.

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.