

# Soybean Oil Based Unsaturated Polyester Resin (SOYMER)

## Description

Soymer is unsaturated polyester molding resin derived in part from soybean oil. It is an unpromoted, medium reactive and low viscosity molding resin. Soymer has a green content of 35wt%.

## Application

The product is intended as a general purpose molding resin for SMC, BMC, and Pultrusion applications. It can be used by itself or in combination with other unsaturated polyester resin.

## Features and Benefits

- Derived from Soybean oil
- Low Viscosity
- Balanced of mechanical properties and toughness
- Compatible with other unsaturated polyester resin
- Use with both styrene and styrene free systems



## Typical Physical Properties

Measurement	SOYMER
Viscosity-(Brookfield LVT #3 @30 RPM)	880cps
Non Volatile %	69%
Acid Number-On solution (mg/g)	14
Specific Gravity (lbs./gallon)	8.87
SPI Gel Time (minutes)	3.5
SPI Cure (minutes)	3.0
SPI Peak Exotherm (Degrees C)	175

## Typical Mechanical and Electrical Properties of Molded Part

Measurement	SOYMER
Flex Modulus	1.5
Tensile	17,486
Tensile Modulus	1.7
Impact (notched)	21.1
Arc (seconds)	180
Dielectric (volts/mil.)	321



## Typical SMC Processing Parameters

Measurement	SOYMER
Dielectric Cure Analysis-Minimum Flow Time (seconds)	11.93
Dielectric Cure Analysis-Gel Time (seconds)	21.36
Dielectric Cure Analysis-Cure Time (seconds)	53.06
Specific Gravity	1.78
Shrink (Hot Tool to Cood Part) mil./inch	2.76
Shrink (Cold Tool to Cold Part)	1.26
Paste Viscosity before Thickener	8000 cps at 90 F
Viscosity in 1 Day (millions CPS) Stored 95F	3
Viscosity in 4 Days (millions CPS) Stored 95F	11
Molded Panel at 20-25% Glass	<b>Good Part</b>

