

## Ensinger Sintimid™ V 40% graphite Polyimide (PI) (discontinued \*\*)

Category: Polymer, Thermoplastic, Polyimide, Thermoplastic, Thermoplastic Polyimide, Graphite Filled

## **Material Notes:**

SINTIMID<sup>™</sup> V polyimide stock shapes provide a superior combination of high temperature and bearing and wear, properties that make it an idea choice for the most demanding applications. SINTIMID<sup>™</sup> V is characterized by its long-term thermal stability, outstanding wear resistance, high creep resistance, and strength up to its continuous use temperature of 572°F. Specialty grades containing internal lubricants such as graphite are available for applications requiring improved wear resistance and lower coefficients of friction. Superior high temperature characteristicsExcellent long-term thermal stabilityOutstanding bearing and wear properties (at elevated temperatures, SINTIMID<sup>™</sup> V formulations offer superior wear rates)Excellent creep resistanceHigh strength and stiffness properties (SINTIMID<sup>™</sup> V has a tensile strength of 20,000 psi at room temperature)High purity characteristics (only extremely low levels of extractables and ionic impurities are apparent in SINTIMID<sup>™</sup> V)Good chemical resistance (SINTIMID<sup>™</sup> V is not attacked by common solvents or fuels and is acceptable for use in contact with many acids)SINTIMID<sup>™</sup> V with its superior physical properties, is ideal for applications in the aerospace, nuclear, automotive, electrical/electronic, and chemical processing industries. It is an excellent candidate for high purity applications in the semiconductor processing industry. Typical components produced from SINTIMID<sup>™</sup> V include seals, thrust washers, bushings and wear pads in transportation/off-highway equipment, insulating and support elements in electrical welding and brazing equipment, and wafer-handling components in the harsh environment of semiconductor plasma ovens. Pump and valve seals, vanes, and piston rings are also commonly produced from SINTIMID<sup>™</sup> V.Information Provided by Ensinger Industries, Inc.Sintimid has been replaced with Tecasint in the Ensinger product line.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Ensinger-Sintimid-V-40-graphite-Polyimide-PI-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.56 g/cc	1.56 g/cc	ASTM D792
Density	1.56 g/cc	0.0563 lb/in³	ASTM D792
Water Absorption	0.87 %	0.87 %	ASTM D570
	@Temperature 22.8 °C, Time 86400 sec	@Temperature 73.0 °F, Time 24.0 hour	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	111	111	ASTM D785
Tensile Strength, Yield	64.8 MPa	9400 psi	ASTM D638
	@Temperature 22.8 °C	@Temperature 73.0 °F	
Elongation at Break	2.2 %	2.2 %	ASTM D638
	@Temperature 22.8 °C	@Temperature 73.0 °F	
Flexural Strength	100 MPa	14500 psi	ASTM D790
	@Temperature 22.8 °C	@Temperature 73.0 °F	



Mechanical Properties	MetricPe	English	Comments
T TEXTI AT WOODING	@Temperature 22.8 °C	@Temperature 73.0 °F	ASTRIBISO
Izod Impact, Notched	0.160 J/cm	0.300 ft-lb/in	ASTM D256
	@Temperature 22.8 °C	@Temperature 73.0 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	30.6 μm/m-°C	17.0 μin/in-°F	ASTM D696
Maximum Service Temperature, Air	280 °C	536 °F	Long Term
	330 °C	626 °F	Intermittent
Deflection Temperature at 1.8 MPa (264 psi)	>= 316 °C	>= 600 °F	ASTM D648

## **Contact Songhan Plastic Technology Co.,Ltd.**

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