

LNPTM THERMOCOMPTM AM COMPOUND

EZ006EXAR1

DESCRIPTION

LNP THERMOCOMP EZ006EXAR1 is a compound based on Polyetherimide (PEI) resin containing 30% milled glass fiber for Large Format Additive manufacturing (LFAM) applications requiring better dimensional stability and low thermal expansion. PEI compounds, based on SABIC's inherently flame-retardant ULTEM™ resins, offer high temperature performance, excellent strength-to-weight ratio, high modulus and low creep.

GENERAL INFORMATION	
Features	Flame Retardant, Creep resistant, Dimensional stability, High stiffness/Strength, High temperature resistance, No PFAS intentionally added, Additive Manufacturing
Fillers	Milled Glass Fiber
Brands	LNPTM THERMOCOMPTM
Polymer Types	Polyetherimide (PEI)

INDUSTRY	SUB INDUSTRY
Industrial	Industrial General

TYPICAL PROPERTY VALUES

Revision 20241017

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, 5mm/min ⁽¹⁾			
XZ Orientation	84	MPa	ASTM D638 Modified
ZX Orientation	45	MPa	ASTM D638 Modified
Tensile Strain, 5mm/min			
XZ Orientation	2.4	%	ASTM D638 Modified
ZX Orientation	1.5	%	ASTM D638 Modified
Tensile Stiffness, 5mm/min			
XZ Orientation ⁽²⁾	5.8	GPa	ASTM D638 Modified
ZX Orientation	3.5	GPa	ASTM D638 Modified
Flexural Stress, 5mm/min			
XZ Orientation	67	MPa	ASTM D790 Modified
ZX Orientation	131	MPa	ASTM D790 Modified
THERMAL			
HDT, 1.82 MPa, 6.4 mm, unannealed	207	°C	ASTM D648
PHYSICAL			
Specific Gravity	1.51	-	ASTM D792
EXTRUSION			
Extruder L/D	24	-	
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Maximum Moisture Content	.02	%	
Barrel - Zone 1 Temperature	320 – 360	°C	
Barrel - Zone 2 Temperature	330 – 370	°C	
Barrel - Zone 3 Temperature	340 – 380	°C	
Barrel - Zone 4 Temperature	350 – 400	°C	
Nozzle Temperature	360 – 400	°C	
Melt Temperature	360 – 400	°C	
Bed Temperature	80 – 150	°C	
Extruder Pressure	<13.5	MPa	

(1) Modified ASTM E8 used for tensile test samples

(2) Tensile Stiffness (K) is structural property defined as the stress/strain in the linear region of the stress-strain curve. Value depends on the geometry/shape and boundary/surrounding conditions

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