

LNPTM THERMOCOMPTM AM COMPOUND DC004XXA11

DESCRIPTION

LNP THERMOCOMP AM DC004XXA11 is a compound based on High Heat PC resin containing 20% carbon fiber for Large Format Additive manufacturing (LFAM) applications, including mid-temperature autoclaving tooling. This compound can offer higher temperature performance than standard PC and avoid some of the processing challenges associated with high temperature materials.

GENERAL INFORMATION	
Features	High stiffness/Strength, High temperature resistance, Impact resistant, No PFAS intentionally added, Additive Manufacturing
Brands	LNPTM THERMOCOMPTM
INDUSTRY	SUB INDUSTRY
Industrial	Industrial General

TYPICAL PROPERTY VALUES

Revision 20240209

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, 5mm/min ⁽¹⁾			
XZ Orientation	86	MPa	ASTM D638 Modified
ZX Orientation	19	MPa	ASTM D638 Modified
Tensile Strain, 5mm/min			
XZ Orientation	1.2	%	ASTM D638 Modified
ZX Orientation	1.2	%	ASTM D638 Modified
Tensile Stiffness, 5mm/min			
XZ Orientation ⁽²⁾	8.5	GPa	ASTM D638 Modified
ZX Orientation	1.8	GPa	ASTM D638 Modified
Flexural Stress, 5mm/min			
XZ Orientation	28	MPa	ASTM D790 Modified
ZX Orientation	109	MPa	ASTM D790 Modified
THERMAL			
HDT, 1.82 MPa, 3.2mm, annealed	181	°C	ASTM D648
PHYSICAL			
Specific Gravity	1.29	-	ASTM D792
EXTRUSION			
Extruder L/D	24	-	
Drying Temperature	135	°C	
Drying Time	4 – 6	Hrs	
Drying Time (Cumulative)	48	Hrs	
Maximum Moisture Content	0.02	%	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Barrel - Zone 1 Temperature	285 – 315	°C	
Barrel - Zone 2 Temperature	305 – 335	°C	
Barrel - Zone 3 Temperature	315 – 345	°C	
Barrel - Zone 4 Temperature	325 – 355	°C	
Nozzle Temperature	320 – 350	°C	
Melt Temperature	320 – 350	°C	
Bed Temperature	100 – 120	°C	
Extruder Pressure	<11	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

ADDITIONAL PRODUCT NOTES

No PFAS intentionally added: The grade listed in this document does not contain PFAS intentionally added during Seller's manufacturing process and is not expected to contain unintentional PFAS impurities. Each user is responsible for evaluating the presence of unintentional PFAS impurities.

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