LNP™ THERMOCOMP™ AM COMPOUND DC004XXAR1

REGION AMERICAS

DESCRIPTION

LNP THERMOCOMP DC004XXAR1 compound is based on Polycarbonate (PC) resin containing 20% carbon fiber for Large Format Additive Manufacturing (LFAM) applications. Added features of this grade include: Higher Stiffness vs. glass fiber, Higher Strength, Higher Temperature Performance and Higher Throughput compared to ABS and PPE, as well as Excellent Ductility and Smooth Surface Finish.

TYPICAL PROPERTY VALUES

Revision 20240209

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, 5mm/min [1]			
XZ Orientation	124	MPa	ASTM D638 Modified
ZX Orientation	48	MPa	ASTM D638 Modified
Tensile Strain, 5mm/min			
XZ Orientation	1.6	%	ASTM D638 Modified
ZX Orientation	2.0	%	ASTM D638 Modified
Tensile Stiffness, 5mm/min			
XZ Orientation [2]	11.5	GPa	ASTM D638 Modified
ZX Orientation	3.0	GPa	ASTM D638 Modified
Flexural Stress, 5mm/min			
XZ Orientation	66	MPa	ASTM D790 Modified
ZX Orientation	164	MPa	ASTM D790 Modified
THERMAL			
HDT, 1.82 MPa, 3.2mm, annealed	144	°C	ASTM D648
PHYSICAL			
Specific Gravity	1.27	-	ASTM D792
EXTRUSION			
Extruder L/D	24	-	
Drying Temperature	120	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.02	%	
Barrel - Zone 1 Temperature	250 – 280	°C	
Barrel - Zone 2 Temperature	260 – 290	°C	
Barrel - Zone 3 Temperature	260 – 290	°C	
Barrel - Zone 4 Temperature	260 – 290	°C	
Nozzle Temperature	260 – 290	°C	
Melt Temperature	260 – 290	°C	
Bed Temperature	100 – 120	°C	
Extruder Pressure	<11	MPa	

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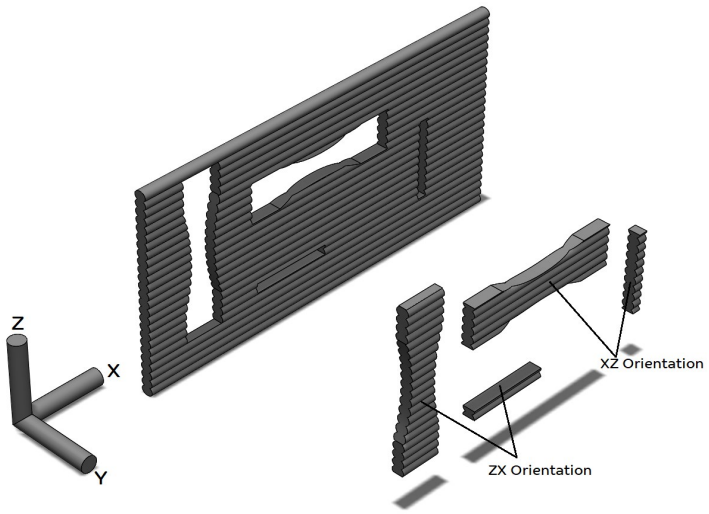
(1) Modified ASTM E8 used for tensile test samples
(2) Tensile Stiffness (K) is structural property defined as the stress/strain in the linear region of the stress-strain curve. Value depends on the geometry/shape and boundary/surrounding conditions



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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