LNP™ THERMOCOMP™ AM COMPOUND AF004XXAR1

DESCRIPTION

LNP THERMOCOMP AF004XXAR1 compound is based on Acrylonitrile Butadiene Styrene (ABS) resin containing 20% glass fiber for Large Format Additive Manufacturing (LFAM) applications. Added features of this grade include: Easy Processing, Low Warp and Good Print Surface quality, making them a good candidate material for a broad range of applications and tooling, including thermoforming and vacuum-forming.

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, 5mm/min [1]			
XZ ORIENTATION	63	MPa	ASTM D638 Modified
ZX ORIENTATION	21	MPa	ASTM D638 Modified
Tensile Strain, 5mm/min			
XZ ORIENTATION	1.8	%	ASTM D638 Modified
ZX ORIENTATION	1.0	%	ASTM D638 Modified
Tensile Stiffness, 5mm/min			
XZ ORIENTATION [2]	5.1	GPa	ASTM D638 Modified
ZX ORIENTATION	2.6	GPa	ASTM D638 Modified
Flexural Stress, 5mm/min			
XZ ORIENTATION	35	MPa	ASTM D790 Modified
ZX ORIENTATION	91	MPa	ASTM D790 Modified
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	103	°C	ASTM D648
PHYSICAL			
Specific Gravity	1.198	-	ASTM D792
EXTRUSION			
Extruder L/D	24	-	
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.05 – 0.1	%	
Barrel - Zone 1 Temperature	190 – 230	°C	
Barrel - Zone 2 Temperature	200 – 240	°C	
Barrel - Zone 3 Temperature	210 – 250	°C	
Barrel - Zone 4 Temperature	220 – 260	°C	
Nozzle Temperature	210 – 250	°C	
Melt Temperature	220 – 260	°C	
Bed Temperature	100 – 120	°C	
Extruder Pressure	<13.5	MPa	

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(1) Modified ASTM E8 used for tensile test samples.

(2) Tensile Stiffness (K) is a 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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