LNP™ THERMOCOMP™ AM COMPOUND JC004XXAR1

DESCRIPTION

LNP THERMOCOMP AM JC004XXAR1 is a compound based on PESU (Polyethersulfone) resin containing 20% carbon fiber for Large Format Additive manufacturing (LFAM) applications needing an inherent FR, reinforcement, and a high heat amorphous solution.

TYPICAL PROPERTY VALUES

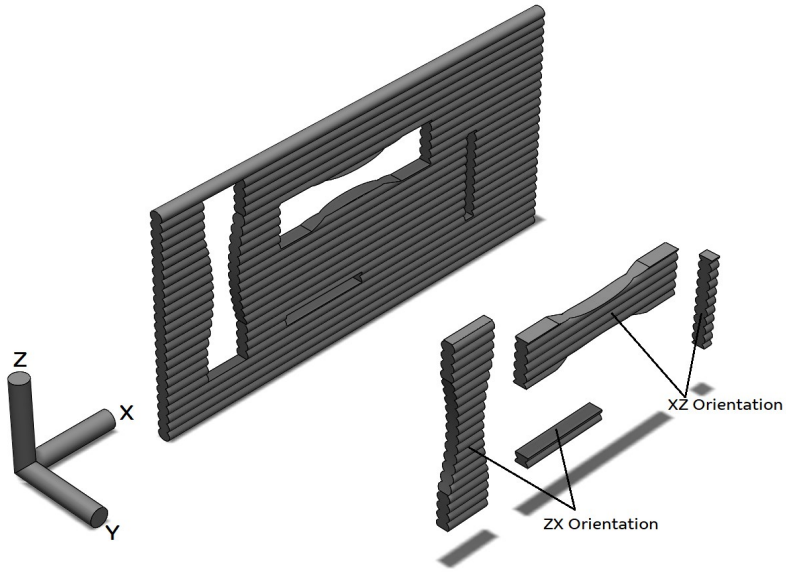
Revision 20251217

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, 5mm/min [1]			
XZ Orientation	84	MPa	ASTM D638 Modified
ZX Orientation	23	MPa	ASTM D638 Modified
Tensile Strain, 5mm/min			
XZ Orientation	1.4	%	ASTM D638 Modified
ZX Orientation	1.2	%	ASTM D638 Modified
Tensile Stiffness, 5mm/min			
XZ Orientation [2]	7.8	GPa	ASTM D638 Modified
ZX Orientation	2.2	GPa	ASTM D638 Modified
Flexural Stress, 5mm/min			
XZ Orientation	37	MPa	ASTM D790 Modified
ZX Orientation	103	MPa	ASTM D790 Modified
THERMAL			
HDT, 1.82 MPa, 3.2mm, annealed	214	°C	ASTM D648
PHYSICAL			
Specific Gravity	1.43	-	ASTM D792
EXTRUSION			
Extruder L/D	24	-	
Drying Temperature	150	°C	
Drying Time	4 – 6	Hrs	
Maximum Moisture Content	0.02	%	
Barrel - Zone 1 Temperature	300 – 330	°C	
Barrel - Zone 2 Temperature	325 – 355	°C	
Barrel - Zone 3 Temperature	335 – 365	°C	
Barrel - Zone 4 Temperature	345 – 375	°C	
Nozzle Temperature	345 – 375	°C	
Melt Temperature	345 – 375	°C	
Bed Temperature	120 – 150	°C	
Extruder Pressure	<17	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

© 2025 Copyright by SABIC. All rights reserved



DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.

© 2025 Copyright by SABIC. All rights reserved