LNP™ THERMOCOMP™ AM Compound DC0041XA51

PC-CF20 | Saudi Basic Industries Corporation (SABIC)

Product Texts

LNP THERMOCOMP DC0041XA51 compound is based on PC Copolymer 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 Smooth Surface Finish. This halogen-free flame retardant resin is EN45545 R1 HL3 and R27 HL2 compliant and an ideal candidate for train interior applications (category R1). It also meets requirements of NFPA-130a

Thermal properties	Value	Unit	Test Standard
ASTM Data			
DTUL @ 264 psi	**97**	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Density	**1390**	kg/m³	ASTM D 792

3D Data	Value	Unit	Test Standard
Tensile strength, on-edge	**87**	MPa	-
Tensile strength, upright	**37**	MPa	-
Flexural strength, on-edge	**52**	MPa	-
Flexural strength, upright	**111**	MPa	-

Processing Recommendation Extrusion	Value	Unit	Test Standard
Pre-drying - Temperature	**95 - 100**	°C	-
Pre-drying - Time	**6 - 8**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**280 - 310**	°C	-
Zone 1	**265 - 295**	°C	-
Zone 2	**275 - 305**	°C	-
Zone 3	**285 - 315**	°C	-
Zone 4	**295 - 325**	°C	-
Nozzle temperature	**295 - 325**	°C	-

Characteristics

Processing
Additive Manufacturing

Features
Creep Resistance

Special Characteristics
Flame retardant, Halogen-free, Heat stabilized or stable to heat

Regional Availability
North America, Europe, Asia Pacific, South and Central America