LNP™ THERMOCOMP™ Compound DF004AT

PC-GF20 — Saudi Basic Industries Corporation (SABIC)

Product Texts

LNP THERMOCOMP DF004AT compound is based on Polycarbonate (PC) resin containing 20% glass fiber. Added features of this grade include: Transparent/Translucent, High stiffness/Strength.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Melt Flow Index, MFI	**10**	g/10min	ASTM D 1238
Temperature	**300**	°C	-
Load	**1.2**	kg	-
Mold Shrinkage, MD	**0.0022**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.0044**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**5900**	MPa	ISO 527
Stress at break	**97**	MPa	ISO 527
Strain at break	**2.9**	%	ISO 527
Flexural modulus, 23°C	**4800**	MPa	ISO 178
Flexural strength	**137**	MPa	ISO 178
Charpy impact strength, +23°C	**58.6**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	**43.9**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**14.9**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**10.1**	kJ/m²	ISO 179/1eA
Izod impact strength, +23°C	**45.8**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C	**13.9**	kJ/m²	ISO 180/1A
Izod notched impact strength	**10.6**	kJ/m²	ISO 180/1A
Temperature	**-30**	°C	-
ASTM Data			
Tensile Modulus	**5800**	MPa	ASTM D 638
Tensile Strength at Break	**96**	MPa	ASTM D 638
Elongation at Break	**2.8**	%	ASTM D 638
Flexural Modulus	**5300**	MPa	ASTM D 790
Flexural Strength	**148**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**170**	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	**124**	J/m	ASTM D 256
Temperature	**-30**	°C	-
Izod Impact unnotched, 1/8 in	**768**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**116**	°C	ISO 75-1/-2
Vicat softening temperature, A	**132**	°C	ISO 306
Vicat softening temperature, B	**122**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**22.7**	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	**68.1**	E-6/K	ISO 11359-1/-2
ASTM Data			
Coefficient of Thermal Expansion, TD	**66.6**	E-6/K	ASTM D 696
DTUL @ 264 psi	**116**	°C	ASTM D 648
Vicat Temperature	**124**	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Density	**1320**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**100**	°C	-
Pre-drying - Time	**4 - 6**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**270 - 320**	°C	-
Mold temperature	**95 - 110**	°C	-

Zone 1	**270 - 280**	°C	-
Zone 2	**280 - 295**	°C	-
Zone 3	**290 - 310**	°C	-
Nozzle temperature	**290 - 310**	°C	-
Screw speed	**40 - 70**	rpm	-
Back pressure	**0.3 - 0.7**	MPa	-

Characteristics

Processing
Injection Molding

Applications
Automotive, IT / Business Machine

Special Characteristics
Transparent, Translucent

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