LNP™ THERMOCOMP™ Compound DC006ERH

PC-CF30 — Saudi Basic Industries Corporation (SABIC)

Product Texts

LNP THERMOCOMP DC006ERH compound is based on Polycarbonate (PC) resin containing 30% carbon fiber. Added features of this grade include: Electrically Conductive, Easy Molding, Mold Release, Healthcare.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	**0.23**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.49**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**18100**	MPa	ISO 527
Stress at break	**156**	MPa	ISO 527
Strain at break	**1.6**	%	ISO 527
Flexural modulus	**16100**	MPa	ISO 178
Flexural strength	**224**	MPa	ISO 178
Izod impact strength, +23°C, 4mm	**35**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	**8**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**18620**	MPa	ASTM D 638
Tensile Strength at Break	**158**	MPa	ASTM D 638
Elongation at Break	**1.7**	%	ASTM D 638
Flexural Modulus	**15600**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**75**	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	**609**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**141**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**146**	°C	ISO 75-1/-2
ASTM Data			
Coefficient of Thermal Expansion, MD	**12**	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	**37.1**	E-6/K	ASTM D 696
DTUL @ 66 psi	**146**	°C	ASTM D 648
DTUL @ 264 psi	**140**	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Humidity absorption	**0.14**	%	Sim. to ISO 62
Water Absorption, 24hr	**0.1**	%	ASTM D 570
Density	**1320**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**120**	°C	-
Pre-drying - Time	**4**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**305 - 325**	°C	-
Mold temperature	**80 - 110**	°C	-
Zone 1	**295 - 305**	°C	-
Zone 2	**310 - 320**	°C	-
Zone 3	**320 - 330**	°C	-
Screw speed	**30 - 60**	rpm	-
Back pressure	**0.2 - 0.3**	MPa	-

Characteristics

Processing

Injection Molding

Regional Availability

North America, Europe, Asia Pacific

Special Characteristics
Increased electrical conductivity