LNP™ THERMOCOMP™ Compound EC006AQW

PEI-CF30 — Saudi Basic Industries Corporation (SABIC)

Product Texts

LNP THERMOCOMP EC006AQW compound is based on Polyetherimide (PEI) resin containing 30% carbon fiber. Added features of this grade include: Electrically Conductive. This grade has been pre-assessed and passed the material related tests from the ISO 10993 “Biological Evaluation of Medical Devices”.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Melt Flow Index, MFI	**10**	g/10min	ASTM D 1238
Temperature	**380**	°C	-
Load	**6.7**	kg	-
Mold Shrinkage, MD	**0.2**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**0.35**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**27500**	MPa	ISO 527
Stress at break	**257**	MPa	ISO 527
Strain at break	**1.4**	%	ISO 527
Flexural modulus	**23300**	MPa	ISO 178
Flexural strength	**350**	MPa	ISO 178
Izod impact strength, +23°C, 4mm	**32**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	**7**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**29220**	MPa	ASTM D 638
Tensile Strength at Break	**255**	MPa	ASTM D 638
Elongation at Break	**1.4**	%	ASTM D 638
Flexural Modulus	**22200**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**80**	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	**580**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**198**	°C	ISO 75-1/-2
ASTM Data			
DTUL @ 264 psi	**198**	°C	ASTM D 648

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

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**150**	°C	-
Pre-drying - Time	**4 - 6**	h	-
Processing humidity	**≤0.02**	%	-
Melt temperature	**360 - 400**	°C	-
Mold temperature	**140 - 180**	°C	-
Zone 1	**360 - 380**	°C	-
Zone 2	**370 - 390**	°C	-
Zone 3	**380 - 400**	°C	-
Back pressure	**0.3 - 0.7**	MPa	-

Characteristics

Processing

Injection Molding

Applications

Medical

Special Characteristics

Increased electrical conductivity, Ethylene Oxide (EtO) Sterilization, Gamma irradiation sterilization

Regional Availability

North America, Europe, Asia Pacific

Certifications

US Pharmacopeia Class VI Approved