LNP™ LUBRICOMP™ Compound 5CL23

(PVDF+PTFE)-CF15 — Saudi Basic Industries Corporation (SABIC)

Product Texts

LNP LUBRICOMP 5CL23 compound is based on Polyvinylidene Fluoride (PVDF) resin containing 15% carbon fiber, 10% PTFE. Added features of this grade include: Wear Resistant, Electrically Conductive.

Processing/Physical Characteristics	Value	Unit	Test Standard
ASTM Data			
Mold Shrinkage, MD	**0.4**	mm/mm	ASTM D 955
Mold Shrinkage, TD	**2**	mm/mm	ASTM D 955

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	**14500**	MPa	ISO 527
Stress at break	**77**	MPa	ISO 527
Strain at break	**0.7**	%	ISO 527
Flexural modulus	**11900**	MPa	ISO 178
Flexural strength	**100**	MPa	ISO 178
Izod impact strength, +23°C, 4mm	**13**	kJ/m²	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	**5**	kJ/m²	ISO 180/1A
ASTM Data			
Tensile Modulus	**15780**	MPa	ASTM D 638
Tensile Strength at Break	**84**	MPa	ASTM D 638
Elongation at Break	**0.8**	%	ASTM D 638
Flexural Modulus	**12500**	MPa	ASTM D 790
Izod Impact notched, 1/8 in	**55**	J/m	ASTM D 256
Izod Impact unnotched, 1/8 in	**201**	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	**158**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**166**	°C	ISO 75-1/-2
ASTM Data			
Coefficient of Thermal Expansion, MD	**21.1**	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	**84.1**	E-6/K	ASTM D 696
DTUL @ 66 psi	**168**	°C	ASTM D 648
DTUL @ 264 psi	**164**	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Humidity absorption	**0.05**	%	Sim. to ISO 62
Water Absorption, 24hr	**0.03**	%	ASTM D 570
Density	**1840**	kg/m³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	**120 - 150**	°C	-
Pre-drying - Time	**4**	h	-
Melt temperature	**215 - 230**	°C	-
Mold temperature	**65 - 90**	°C	-
Zone 1	**190 - 210**	°C	-
Zone 2	**210 - 225**	°C	-
Zone 3	**225 - 245**	°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