



LNPTTM LUBRICOMPTM COMPOUND VCP36

REGION EUROPE

DESCRIPTION

LNP LUBRICOMP VCP36 compound is based on Super Tough Nylon resin containing 30% carbon fiber and 15% PTFE/SILICON. Added features of this grade include: Internally Lubricated, Electrically Conductive, Heat Stabilized, Wear Resistant.

GENERAL INFORMATION	
Applications	All-Terrain Vehicle, Building Element, Defense Vehicles, Defense, Gear/Bearing/Slider, Refrigerator
Features	Wear and Friction, Structural, Electrically Conductive, Heat Stabilized, Lubricated, Wear resistant
Fillers	Carbon Fiber, PTFE/Silicone
Polymer Types	Polyamide 66 (Nylon 66)
Processing Techniques	Injection Molding

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Modulus, 1 mm/min	17500	MPa	ISO 527
Tensile Stress, break, 5 mm/min	126	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1	%	ISO 527
Flexural Modulus, 2 mm/min	13600	MPa	ISO 178
Flexural Strength, 2 mm/min	180	MPa	ISO 178
Tensile Modulus, 5 mm/min	17000	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	94	MPa	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	1	%	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	12800	MPa	ASTM D790
Flexural Strength, 1.3 mm/min, 50 mm span	160	MPa	ASTM D790
IMPACT ⁽¹⁾			
Izod Impact, notched 80*10*4 +23°C	8	kJ/m ²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	35	kJ/m ²	ISO 180/1U
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	8	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	35	kJ/m ²	ISO 179/1eU
Izod Impact, notched, 23°C	66	J/m	ASTM D256
Izod Impact, unnotched, 23°C	335	J/m	ASTM D4812
THERMAL ⁽¹⁾			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	243	°C	ISO 75/Af
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	259	°C	ISO 75/Bf
HDT, 1.82 MPa, 3.2mm, unannealed	243	°C	ASTM D648
HDT, 0.45 MPa, 3.2 mm, unannealed	258	°C	ASTM D648
Vicat Softening Temp, Rate A/ 120	251	°C	ISO 306
Vicat Softening Temp, Rate B/ 120	250	°C	ISO 306
Vicat Softening Temp, Rate B/ 120	250	°C	ASTM D1525
CTE, -40°C to 40°C, flow	6.00E-06	1/°C	ISO 11359-2

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
CTE, -40°C to 40°C, xflow	6.00E-05	1 / °C	ISO 11359-2
CTE, -40°C to 40°C, flow	6.00E-06	1 / °C	ASTM E831
CTE, -40°C to 40°C, xflow	6.00E-06	1 / °C	ASTM E831
PHYSICAL ⁽¹⁾			
Density	1.26	g / cm ³	ISO 1183
Moisture Absorption, (23°C/50% RH/24hrs)	0.6	%	ISO 62-4
Mold Shrinkage, flow ⁽²⁾	0.1 – 0.3	%	SABIC method
Mold Shrinkage, xflow ⁽²⁾	0.1 – 0.3	%	SABIC method
Specific Gravity	1.26	-	ASTM D792
Wear Factor Washer	20	10 ⁻⁴ -10 in ⁴ -min / ft-lb-hr	ASTM D3702 Modified: Instr.
Dynamic COF	0.85	-	ASTM D3702 Modified: Instr.
Static COF	0.82	-	ASTM D3702 Modified: Instr.
INJECTION MOLDING ⁽³⁾			
Drying Temperature	80	°C	
Drying Time	4	Hrs	
Maximum Moisture Content	0.15	%	
Hopper Temperature	40 – 60	°C	
Melt Temperature	285 – 300	°C	
Rear - Zone 1 Temperature	265 – 290	°C	
Middle - Zone 2 Temperature	275 – 300	°C	
Front - Zone 3 Temperature	285 – 305	°C	
Nozzle Temperature	285 – 300	°C	
Mold Temperature	90 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw speed (Circumferential speed)	0.15 – 0.25	m/s	