

Tribocomp® PA66 LGF30 PTFE15 MoS0.5 polyamide 66

Tribocomp® PA66 LGF30 PTFE15% MoS0.5% is a 30% long glass fiber reinforced high-flow PA66 compound containing a PTFE/MoS2 package. It has

been specifically designed for friction and wear applications. It can be easily be processed on most injection molding machines.

General

Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Filler / Reinforcement	• Long Glass Fiber, 30% Filler by Weight	• PTFE, 15% Filler by Weight
Features	• Abrasion Resistant • Heat Stabilized • High Flow	• High Friction • High Temperature Strength • Low Shrinkage
Uses	• Automotive Applications • Automotive Under the Hood • Engineering Parts	• Gears • Industrial Applications • Power/Other Tools
RoHS Compliance	• RoHS Compliant	
Appearance	• Natural Color	
Forms	• Pellets	
Processing Method	• Compression Molding	• Injection Molding

Physical	Dry	Conditioned	Unit	Test method
Density	1.50	--	g/cm ³	ISO 1183
Molding Shrinkage - Flow	0.40	--	%	ISO 294-4
Water Absorption (Equilibrium, 23°C, 50% RH)	1.4	--	%	ISO 62

Mechanical	Dry	Conditioned	Unit	Test method
Tensile Modulus				ISO 527-1
23°C	10900	8000	MPa	
90°C	6700	--	MPa	
Tensile Stress				ISO 527-2
Yield, 23°C	200	140	MPa	
Yield, 90°C	125	--	MPa	
Tensile Strain (Break, 23°C)	2.7	2.8	%	ISO 527-2
Flexural Modulus (23°C)	10600	--	MPa	ISO 178
Flexural Stress (23°C)	285	--	MPa	ISO 178
Coefficient of Friction				ASTM D3702
Dynamic	0.23	--		
Static	0.18	--		

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Mechanical	Dry	Conditioned	Unit	Test method
Wear Factor	13.0	--		ASTM D3702

Impact	Dry	Conditioned	Unit	Test method
Charpy Notched Impact Strength (23°C)	23	--	kJ/m ²	ISO 179
Charpy Unnotched Impact Strength (23°C)	75	--	kJ/m ²	ISO 179

Thermal	Dry	Conditioned	Unit	Test method
Deflection Temperature Under Load				
0.45 MPa, Unannealed	262	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	258	--	°C	ISO 75-2/A
Thermal Conductivity	0.29	--	W/m/K	ISO 22007
Coefficient of Linear Thermal Expansion	1.9E-5	--	cm/cm/°C	ISO 11359-2

Electrical	Dry	Conditioned	Unit	Test method
Electric Strength (2.00 mm)	35	--	kV/mm	IEC 60243-1
Comparative Tracking Index	500	--	V	IEC 60112
Surface Resistivity	1.0E+12	--	ohms/sq	ASTM D257

Additional Information

Dry	The value listed as Molding Shrinkage ISO 294-4, was tested in accordance with S.O.P. methods.
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Injection	Dry	Unit
Drying Temperature	80 to 100	°C
Drying Time	4.0	hr
Suggested Max Moisture	0.10	%
Rear Temperature	290 to 300	°C
Middle Temperature	300	°C
Front Temperature	300	°C
Nozzle Temperature	300	°C
Processing (Melt) Temp	< 300	°C
Mold Temperature	80 to 120	°C

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Injection Notes

Pre-drying -- Since polyamides are hygroscopic materials as well as sensitive to moisture during processing, this product should always be pre-dried. At a humidity content above 0.1%, the material will begin to degrade. Recommended drying time is 4 hours at 100°C in dry-air dryer.

Processing temperatures -- Melt temperature should be kept below 300°C in order to prevent degradation. The exact setting depends from machine and mold design, but is usually within the range indicated in the Processing Information section of this TDS.

Mold temperature -- The mold temperature is a compromise between the optimum properties that can be obtained from high crystallization, and cycle time. This material can be processed at mold temperatures between 80°C and 140°C. Optimum surface quality requires a mold temperature above 120°C.

Regrind -- Regrind of highly filled thermoplastic materials, such as this material, should only be recycled with special care. The regrind content must never exceed 15%, and only regrind of optimum quality should be used. In any case, part properties should be checked.

Notes

Typical properties: these are not to be construed as specifications.

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