# **LUVOCOM® 50-3019**

### Polycarbonate

Lehmann & Voss & Co.

#### Message:

LUVOCOM® 50-3019 is a polycarbonate (PC) material, and the filler is glass fiber reinforced material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific.

LUVOCOM®The main features of 50-3019 are:

flame retardant/rated flame

Good dimensional stability

Good stiffness

Wear-resistant

Lubrication

Typical application areas include:

engineering/industrial accessories

business/office supplies

Sporting goods

medical/health care

Filler / Reinforcement         Additive       PTEF Lubricant         Features       Good dimensional stability         Low friction coefficient       Rigid, good         Good strength       Good wear resistance         Lubrication       Lubrication         Business equipment       Fengineering accessories         Sporting goods       Sporting goods         Medical/nursing supplies       Sporting goods         Physical       Nominal Value       Unit       Test Method         Bensity       1.37       g/cm²       150 183         Molding Shrinkage       04 - 0.70       %       150 183         Molding Shrinkage       4.0 - 0.70       %       100 180         Molding Shrinkage       4.0 - 0.70       %       150 183         Mechanical       Nominal Value       Win       150 183         Mechanical       4.50       MPa       50 527-2         Tensile Stress (Break)       8.0       MPa       50 527-2         Fensile Strain (Yield)       3.50       MPa       50 517-2         Fensile Strain (Yield)       3.50       MPa       50 517-2	General Information					
Features    Good dimensional stability   Low friction coefficient   Rigid, good   Good strength   Good wear resistance   Lubrication	Filler / Reinforcement	Glass fiber reinforced mat	Glass fiber reinforced material			
Low friction coefficient Rigid, good Good strength Good wear resistance Lubrication  Uses  Gear Engineering accessories Business equipment Sporting goods Medical/nursing supplies  Appearance Black  Physical Nominal Value Unit Test Method  Density 1.37  Molding Shrinkage 0.40 - 0.70 9(m) 1.50 1183  Molding Shrinkage 0.50 27-2  Tensile Stress (Break) 0.80 0.90 MPa 1.50 527-2  Tensile Strain (Yield) 1.50 527-2	Additive	PTFE lubricant				
Rigid, good Good strength Good wear resistance Lubrication  Uses  Gear Engineering accessories Business equipment Sporting goods Medical/nursing supplies  Appearance Black  Physical Nominal Value Unit Test Method  Density 1.37 Molding Shrinkage 0.40 - 0.70 Meter Absorption (23°C, 24 hr) Volue Nominal Value Unit Test Method Unit Test Method  Density Methodical Mominal Value Unit Test Method  Mominal Value Unit Test Method  Mominal Value Unit Test Method  Mominal Value Nominal Value Mechanical Nominal Value Nominal V	Features	Good dimensional stabilit	у			
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Lubrication  Uses  Gear Engineering accessories Business equipment Sporting goods Medical/nursing supplies  Appearance Black  Physical Nominal Value Unit Test Method  Density 1.37 Molding Shrinkage 0.40 - 0.70 % 150 1183  Molding Shrinkage 0.40 - 0.70 % DiN 16901  Water Absorption (23°C, 24 hr) <0.20  Mechanical Nominal Value Unit Test Method  Density Test Method  MPa 150 527-2  Tensile Stress (Break) 80.0 MPa 150 527-2  Tensile Strain (Yield) 3.5		Good strength				
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Engineering accessories Business equipment Sporting goods Medical/nursing supplies  Appearance Black  Physical Nominal Value Unit Test Method  Density 1.37 g/cm³ ISO 1183  Molding Shrinkage 0.40 - 0.70 % DiN 16901  Water Absorption (23°C, 24 hr) < <0.20 %  Mechanical Nominal Value Unit Test Method  DIN 16901  Test Method  DIN 16901  Test Method  Mechanical Nominal Value Unit Test Method  MPa ISO 527-2  Tensile Stress (Break) 80.0 MPa ISO 527-2  Tensile Stresi (Yield) 3.5		Lubrication				
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Medical/nursing supplies           Appearance         Black           Physical         Nominal Value         Unit         Test Method           Density         1.37         g/cm³         ISO 1183           Molding Shrinkage         0.40 - 0.70         %         DIN 16901           Water Absorption (23°C, 24 hr)         < 0.20		Business equipment				
Appearance         Black           Physical         Nominal Value         Unit         Test Method           Density         1.37         g/cm³         ISO 1183           Molding Shrinkage         0.40 - 0.70         %         DIN 16901           Water Absorption (23°C, 24 hr)         < 0.20		Sporting goods	Sporting goods			
Physical         Nominal Value         Unit         Test Method           Density         1.37         g/cm³         ISO 1183           Molding Shrinkage         0.40 - 0.70         %         DIN 16901           Water Absorption (23°C, 24 hr)         < 0.20		Medical/nursing supplies				
Physical         Nominal Value         Unit         Test Method           Density         1.37         g/cm³         ISO 1183           Molding Shrinkage         0.40 - 0.70         %         DIN 16901           Water Absorption (23°C, 24 hr)         < 0.20						
Density       1.37       g/cm³       ISO 1183         Molding Shrinkage       0.40 - 0.70       %       DIN 16901         Water Absorption (23°C, 24 hr)       < 0.20       %         Mechanical       Nominal Value       Unit       Test Method         Tensile Modulus       4500       MPa       ISO 527-2         Tensile Stress (Break)       80.0       MPa       ISO 527-2         Tensile Strain (Yield)       3.5       %       ISO 527-2	Appearance	Black				
Molding Shrinkage       0.40 - 0.70       %       DIN 16901         Water Absorption (23°C, 24 hr)       < 0.20       %         Mechanical       Nominal Value       Unit       Test Method         Tensile Modulus       4500       MPa       ISO 527-2         Tensile Stress (Break)       80.0       MPa       ISO 527-2         Tensile Strain (Yield)       3.5       %       ISO 527-2	Physical	Nominal Value	Unit	Test Method		
Water Absorption (23°C, 24 hr)< 0.20%MechanicalNominal ValueUnitTest MethodTensile Modulus4500MPaISO 527-2Tensile Stress (Break)80.0MPaISO 527-2Tensile Strain (Yield)3.5%ISO 527-2	Density	1.37	g/cm³	ISO 1183		
MechanicalNominal ValueUnitTest MethodTensile Modulus4500MPaISO 527-2Tensile Stress (Break)80.0MPaISO 527-2Tensile Strain (Yield)3.5%ISO 527-2	Molding Shrinkage	0.40 - 0.70	%	DIN 16901		
Tensile Modulus       4500       MPa       ISO 527-2         Tensile Stress (Break)       80.0       MPa       ISO 527-2         Tensile Strain (Yield)       3.5       %       ISO 527-2	Water Absorption (23°C, 24 hr)	< 0.20	%			
Tensile Stress (Break) 80.0 MPa ISO 527-2 Tensile Strain (Yield) 3.5 % ISO 527-2	Mechanical	Nominal Value	Unit	Test Method		
Tensile Strain (Yield) 3.5 % ISO 527-2	Tensile Modulus	4500	MPa	ISO 527-2		
	Tensile Stress (Break)	80.0	MPa	ISO 527-2		
Flexural Modulus 3500 MPa ISO 178	Tensile Strain (Yield)	3.5	%	ISO 527-2		
	Flexural Modulus	3500	MPa	ISO 178		

Flexural Stress	120	MPa	ISO 178
Coefficient of Friction			
Dynamic	0.24		
Static	0.19		
Flexural Strain at Flexural Strength	4.5	%	ISO 178
Maximum operating temperature-Short Term	150	°C	
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	15	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1fU
-30°C	37	kJ/m²	ISO 179/1fU
23°C	39	kJ/m²	ISO 179/1fU
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature	130	°C	UL 746B
Vicat Softening Temperature	160	°C	ISO 306/A
CLTE - Flow	5.0E-5	cm/cm/°C	DIN 53752
Thermal Conductivity	0.30	W/m/K	DIN 52612
Flammability	Nominal Value		Test Method
Flame Rating	НВ		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	120	°C	
Drying Time	4.0 - 6.0	hr	
Suggested Max Moisture	0.020	%	
Rear Temperature	280 - 300	°C	
Middle Temperature	290 - 310	°C	
Front Temperature	300 - 320	°C	
Nozzle Temperature	290 - 310	°C	
Processing (Melt) Temp	295	°C	
Mold Temperature	80.0 - 120	°C	
Injection instructions			

#### General

In general LUVOCOM® can be processed on conventional injection moulding machines while observing the usual technical guidelines.

Any added fibrous materials or fillers may have an abrasive effect. In this case the cylinder and screw should be protected against wear as is usual in the processing of reinforced thermoplastic materials.

Lengthy dwell times for the melts in the cylinder should be avoided.

Lower the temperatures during interruptions!

Predrying (optional)

It is advisable to predry the granulate with a suitable dryer immediately before processing.

The granulate may absorb moisture from the air.

Delivery Form & Storage

Unless indicated otherwise, the material is delivered as 3mm-long pellets in sealed bags on pallets.

Preferably storage should be effected in dry and normally temperatured rooms

Additional Information

During processing, the moisture level should not exceed 0.02%, otherwise molecular degradation may occur.

Suitable heat treatment may increase resistance to the formation of stress cracks.

The processing notes provided merely represent a recommendation for general use. Due to the large variety of machines, geometries and volumes of parts, etc., it may be necessary to employ different settings according to the specific application.

Please contact us for further information.

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#### Recommended distributors for this material

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