

LUVOCOM® 1-IRS-1

Polyamide 66

Lehmann & Voss & Co.

Message:

LUVOCOM® 1-IRS-1 is a polyamide 66 (nylon 66) material containing a carbon 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 1-IRS-1 are:

anti-warping

Good dimensional stability

Good stiffness

heat stabilizer

Typical application areas include:

engineering/industrial accessories

textile/fiber

Automotive Industry

business/office supplies

General Information			
Filler / Reinforcement	Carbon fiber reinforced material		
Additive	heat stabilizer		
Features	Good dimensional stability		
	Low warpage		
	Rigid, good		
	Good strength		
	Thermal Stability		
Uses	Gear		
	Textile applications		
	Engineering accessories		
	Application in Automobile Field		
	Business equipment		
	Cam		
Appearance	Natural color		
Physical	Nominal Value	Unit	Test Method
Density	1.17	g/cm ³	ISO 1183
Molding Shrinkage	0.60 - 1.4	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 1.0	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	6000	MPa	ISO 527-2
Tensile Stress (Break)	125	MPa	ISO 527-2
Tensile Strain (Yield)	3.2	%	ISO 527-2
Flexural Modulus	5000	MPa	ISO 178
Flexural Stress	185	MPa	ISO 178

Flexural Strain at Flexural Strength	4.3	%	ISO 178
Maximum operating temperature-Short Term	160	°C	
Insulation Resistance		ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	25	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature	110	°C	UL 746B
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+11	ohms	IEC 60093
Injection	Nominal Value	Unit	
Drying Temperature			
Hot air dryer, A	75.0	°C	
Vacuum dryer, B	105	°C	
Drying Time			
Hot air dryer, A	6.0 - 16	hr	
Vacuum dryer, B	4.0 - 6.0	hr	
Suggested Max Moisture	0.10	%	
Rear Temperature	290 - 310	°C	
Middle Temperature	290 - 310	°C	
Front Temperature	290 - 310	°C	
Nozzle Temperature	280 - 300	°C	
Processing (Melt) Temp	290	°C	
Mold Temperature	90.0 - 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 0.1%, otherwise molecular degradation and surface defects (e.g. smearing) may occur. Due to rapid absorption of water, originally sealed containers should only be opened immediately prior to processing. Excessively high predrying temperatures may cause discoloration.

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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