LUVOCOM®
High-performance compounds

Technical Data Sheet

LUVOCOM® 80-7050

Acetal (POM) Copolymer

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber		
Features	• Electrically Conductive • ESD Protection	• Good Stiffness • Good Strength	• High Dimensional Stability • Low Warpage
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Typical Value	Unit	Test Method
Density	1.47	g/cm³	ISO 1183
Linear Mould Shrinkage	0.30 to 0.70	%	DIN 16742
Water Absorption (24 hr, 23°C)	< 0.10	%	ISO 62

Mechanical	Typical Value	Unit	Test Method
Tensile Modulus	16000	MPa	ISO 527-1/1
Tensile Stress	115	MPa	ISO 527-2/50
Tensile Strain (Yield)	1.2	%	ISO 527-2/50
Flexural Modulus [1]	14000	MPa	ISO 178
Flexural Stress [2]	170	MPa	ISO 178
Flexural Strain - at max. force [2]	1.5	%	ISO 178
Charpy Unnotched Impact Strength [3]	25	kJ/m²	ISO 179/1eU

Thermal	Typical Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Unannealed	160	°C	
Continuous Use Temperature [4]	100	°C	IEC 60216
Vicat Softening Temperature	160	°C	ISO 306/A
CLTE - Flow [5] (4.00 mm)	2.0E-5	cm/cm/°C	ISO 11359-2
Service Temperature - during lifetime max. 200 hr	120	°C	

Electrical	Typical Value	Unit	Test Method
Surface Resistivity (4.00 mm)	< 1.0E+3	ohms	IEC 60093
Insulation Resistance [6]	< 1.0E+2	ohms	IEC 60167

Flammability	Typical Value	Unit	Test Method
Flame Rating (1.6 mm)	HB		UL 94

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Injection	Typical Value	Unit
Drying Temperature		
Circulation Dryer	120	°C
Desiccant Dryer	75	°C
Drying Time		
Circulation Dryer	2.0 to 4.0	hr
Desiccant Dryer	2.0 to 8.0	hr
Rear Temperature	175 to 190	°C
Middle Temperature	185 to 205	°C
Front Temperature	180 to 200	°C
Nozzle Temperature	175 to 200	°C
Processing (Melt) Temp	200	°C
Mold Temperature	80 to 120	°C

Injection Notes

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

- It is advisable to predry the granulate with a suitable dryer immediately before processing.
- The granulate may absorb moisture from the environment.

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

- If originally sealed containers are used, it is normally possible to omit the predrying stage.
- If PTFE containing materials are not predried, an increase in deposits inside the mould may occur.
- 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.

Notes

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

[1] 2.0 mm/min

[2] 10 mm/min

[3] 80x10x4mm

[4] 20,000 hr

[5] 10x8x4 mm

[6] Strip Electrode R25

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