# LUVOCOM® 80/CF/10/BK

# Acetal (POM) Copolymer

Lehmann & Voss & Co.

## Message:

LUVOCOM® 80/CF/10/BK is a polyoxymethylene (POM) copolymer material, which contains a 10% 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 80/CF/10/BK are:

Conductivity

Electrostatic protection

Good stiffness

Typical application areas include:

engineering/industrial accessories

textile/fiber

**Automotive Industry** 

business/office supplies

General Information

| Filler / Reinforcement  | Carbon fiber reinforced ma         | Carbon fiber reinforced material, 10% filler by weight |             |  |
|---|------------------------------------|--|-------------|--|
| Features  | Conductivity                       |  |             |  |
|   | Rigid, good                        |  |             |  |
|   | Electrostatic discharge protection |  |             |  |
|   | Good strength                      |  |             |  |
|   |                                    |  |             |  |
| Uses  | Gear                               |  |             |  |
|   | Textile applications               |  |             |  |
|   | Engineering accessories            |  |             |  |
|   | Application in Automobile Field    |  |             |  |
|   | Business equipment                 |  |             |  |
|   | Cam                                |  |             |  |
|   | Bearing                            |  |             |  |
|   |                                    |  |             |  |
| Appearance  | Black                              |  |             |  |
| Physical  | Nominal Value                      | Unit   | Test Method |  |
| Density   | 1.43                               | g/cm³  | ISO 1183    |  |
| Molding Shrinkage   | 0.30 - 0.80                        | %  | DIN 16901   |  |
| Water Absorption (23°C, 24 hr)                                | < 0.10                             | %  |             |  |
| Mechanical  | Nominal Value                      | Unit   | Test Method |  |
|   |                                    | МРа  | ISO 527-2   |  |
| Tensile Modulus   | 8000                               | ivii d   |             |  |
|   | 70.0                               | MPa  | ISO 527-2   |  |
| Tensile Modulus Tensile Stress (Break) Tensile Strain (Yield) |                                    |  |             |  |
| Tensile Stress (Break)  | 70.0                               | МРа  | ISO 527-2   |  |

| Dynamic                                     | 0.16          |          |             |
|---|---------------|----------|-------------|
| Static                                      | 0.12          |          |             |
| Flexural Strain at Flexural Strength        | 2.0           | %        | ISO 178     |
| Maximum operating temperature-Short<br>Term | 120           | °C       |             |
| Insulation Resistance                       |               | ohms     | IEC 60167   |
| Impact                                      | Nominal Value | Unit     | Test Method |
| Charpy Unnotched Impact Strength (23°C)     | 25            | kJ/m²    | ISO 179/1fU |
| Thermal                                     | Nominal Value | Unit     | Test Method |
| Continuous Use Temperature                  | 100           | °C       | UL 746B     |
| Vicat Softening Temperature                 | 165           | °C       | ISO 306/A   |
| CLTE - Flow                                 | 6.0E-5        | cm/cm/°C | DIN 53752   |
| Thermal Conductivity                        | 0.40          | W/m/K    | DIN 52612   |
| Electrical                                  | Nominal Value | Unit     | Test Method |
| Surface Resistivity                         | < 1.0E+3      | ohms     | IEC 60093   |
| Injection                                   | Nominal Value | Unit     |             |
| Drying Temperature                          |               |          |             |
| A   | 75.0          | °C       |             |
| Dehumidification desiccant, B               | 120           | °C       |             |
| Drying Time                                 |               |          |             |
| A   | 2.0 - 8.0     | hr       |             |
| Dehumidification desiccant, B               | 2.0 - 4.0     | hr       |             |
| Rear Temperature                            | 175 - 190     | °С       |             |
| Middle Temperature                          | 185 - 205     | °С       |             |
| Front Temperature                           | 180 - 200     | °С       |             |
| Nozzle Temperature                          | 175 - 200     | °C       |             |
| Processing (Melt) Temp                      |               | °C       |             |
|   | 200           | C        |             |
| Mold Temperature                            | 80.0 - 120    | ℃        |             |
| Mold Temperature 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

If originally sealed containers are used, it is normally possible to omit the predrying stage. If PTFE materials are not predried, an increase in deposits inside the mould may occur. When changing from higher melting-point polymers such as polyamides to this product, extremely thorough intermediate cleaning should be carried out. Processing temperatures above 215°C may very rapidly cause thermal damage and should therefore be avoided, particularly as formaldehyde may be eliminated here.

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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