

Polyacetal-copolymer  
with carbon fibers, black

| Physical properties    |            | Test method    | Specimen   | Units                   | Typical value |
|------------------------|------------|----------------|------------|-------------------------|---------------|
| Specific gravity       |            | ISO 1183-3     |            | g/cm <sup>3</sup>       | 1,45          |
| Water absorption       | 23°C / 24h | ISO 62         | ISO 3167 A | %                       | <0,1          |
| Melt volume rate (MVR) |            | 190°C / 2,16kg | pellet     | cm <sup>3</sup> /10 min | 2             |
| Linear mould shrinkage |            | DIN 16742      | ISO 3167 A | %                       | 0,3-0,8       |

**Mechanical properties at 23°C / 50% rh**

|                            |                 |         |            |     |     |
|----------------------------|-----------------|---------|------------|-----|-----|
| Tensile strength           | dry, @50 mm/min | ISO 527 | ISO 3167 A | MPa | 65  |
| Elongation @Fmax.          | dry, @50 mm/min | ISO 527 | ISO 3167 A | %   | 0,8 |
| Tensile modulus            | dry, @1 mm/min  | ISO 527 | ISO 3167 A | GPa | 11  |
| Flexural strength          | dry, @10 mm/min | ISO 178 | ISO 3167 A | MPa | 90  |
| Flexural elongation @Fmax. | dry, @10 mm/min | ISO 178 | ISO 3167 A | %   | 1,1 |
| Flexural modulus           | dry, @2 mm/min  | ISO 178 | ISO 3167 A | GPa | 10  |

**Thermal properties**

|                          |                           |             |            |    |     |
|--------------------------|---------------------------|-------------|------------|----|-----|
| Vicat softening temp.    | VST A                     | DIN ISO 306 | ISO 3167 A | °C | 165 |
| Continuous service temp. | 20.000 h                  | IEC 60216   | ISO 3167 A | °C | 100 |
| Service temperature      | during lifetime max. 200h |             | ISO 3167 A | °C | 120 |

**Electrical properties**

|                       |                     |                  |              |   |                  |
|-----------------------|---------------------|------------------|--------------|---|------------------|
| Insulation resistance | strip electrode R25 | DIN EN 62631-3-3 | ISO 3167 A   | Ω | ≤10 <sup>1</sup> |
| Surface resistance    | ROB                 | DIN EN 62631-3-2 | Ronde 60x4mm | Ω | ≤10 <sup>1</sup> |

**Main features**

Electrically conductive, suitable for continuous discharging of statically-generated electricity. Strong, stiff parts. Low warpage.

Polyacetal-copolymer  
with carbon fibers, black

## Recommended processing parameters

### General

Avoid melt temperature above 215°C! Ventilation of machinery is recommended.

### 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.

### Predrying

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

| Dryer type            | Temperature °C | Drying time in h |
|-----------------------|----------------|------------------|
| Dehumidifying dryer   | 75             | 2 - 8            |
| Air-Circulation Dryer | 120            | 2 - 4            |

### Recommended processing parameters

In general this product 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!

| Mold        | Melt temperature | Nozzle       | Zone 3       | Zone 2       | Zone 1       |
|-------------|------------------|--------------|--------------|--------------|--------------|
| 80 - 120 °C | 200 °C           | 175 - 200 °C | 180 - 200 °C | 185 - 205 °C | 175 - 190 °C |

### 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.