FEATURES & BENEFITS
- Excellent compression set
- UV stabilized
- Black
- Compatibility: PP

APPLICATIONS
- Multiflex® G 50 A 21 BT Z2976 N0089 (A) is designed for use in injection molding/extrusion

TYPICAL PROPERTIES
Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

<table>
<thead>
<tr>
<th>Test*</th>
<th>Property</th>
<th>Unit</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 868</td>
<td>Hardness</td>
<td>Sh.A</td>
<td>50</td>
</tr>
<tr>
<td>ISO 1183/A</td>
<td>Density</td>
<td>g/cm³</td>
<td>1.14</td>
</tr>
<tr>
<td>MDA 179</td>
<td>Spiral flow condition A</td>
<td>cm</td>
<td>65</td>
</tr>
<tr>
<td>ISO 37 Type 1 v = 500 mm/min</td>
<td>Tensile strength at 100% elongation cross direction</td>
<td>MPa</td>
<td>1.3</td>
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<tr>
<td>ISO 37 Type 1 v = 500 mm/min</td>
<td>Tensile strength at break cross direction</td>
<td>MPa</td>
<td>4.8</td>
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<tr>
<td>ISO 37 Type 1 v = 500 mm/min</td>
<td>Elongation at break cross direction</td>
<td>%</td>
<td>510</td>
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<td>ISO 34</td>
<td>Tear strength cross direction</td>
<td>kN/M</td>
<td>23</td>
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<tr>
<td>MDA 129</td>
<td>Compression set 24h/23°C without annealing</td>
<td>%</td>
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<tr>
<td>MDA 129</td>
<td>Compression set 24h/70°C without annealing</td>
<td>%</td>
<td>23</td>
</tr>
<tr>
<td>MDA 129</td>
<td>Compression set 24h/100°C without annealing</td>
<td>%</td>
<td>41</td>
</tr>
</tbody>
</table>

*ISO: International Standardization Organization
MDA (Méthode d'Analyse): Issued from ISO Standards

GUIDELINES FOR INJECTION MOLDING

<table>
<thead>
<tr>
<th>Drying</th>
<th>Not Needed</th>
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</thead>
<tbody>
<tr>
<td>Barrel temperature</td>
<td>Feed Zone: 160 +/- 10</td>
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<tr>
<td></td>
<td>Transition: 190 +/- 10</td>
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<tr>
<td></td>
<td>Front: 200 +/- 10</td>
</tr>
<tr>
<td></td>
<td>Nozzle: 200 +/- 10</td>
</tr>
<tr>
<td>Melt Temperature °C</td>
<td>210 +/- 10</td>
</tr>
<tr>
<td>Back Pressure Bars</td>
<td>10 +/- 5</td>
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<tr>
<td>Injection Speed</td>
<td>70 +/- 10% max</td>
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<tr>
<td>Holding Pressure</td>
<td>30 +/- 10% of Max Injection Pressure</td>
</tr>
<tr>
<td>Mold Temperature °C</td>
<td>40 +/- 20</td>
</tr>
<tr>
<td>Hot Runner °C</td>
<td>190 +/- 10</td>
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### GUIDELINES FOR EXTRUSION

<table>
<thead>
<tr>
<th>Drying</th>
<th>Not Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature °C</td>
<td>Feed Zone</td>
</tr>
<tr>
<td>Zone 1</td>
<td>180 +/- 10</td>
</tr>
<tr>
<td>Zone 2</td>
<td>190 +/- 10</td>
</tr>
<tr>
<td>Adaptator/Die</td>
<td>200 +/- 10</td>
</tr>
<tr>
<td>Melt Temperature °C</td>
<td>190 +/- 10</td>
</tr>
</tbody>
</table>

### PROCESSING GUIDE

**Multiflex®** brand TES CW/T are styrenics thermoplastic elastomers, designed for high compression set applications. Compatibility with polyolefins enables bi-material parts (continuous process or cold insert). Please find below some indications to follow for processing **Multiflex®** TES CW/T series. Of course, this not replaces molder know-how, every tools having own specificity, but this document is useful for initial parameter choice.

#### Background

**Multiflex®** TES CW/T series can be transformed between 190°C to 230°C. In this temperature range, materials are stable, above, thermal degradation occurs, resulting in yellowing and significant odor emanation.

#### Pre-drying

As **Multiflex®** TES CW/T are not humidity sensitive, pre-drying is not needed. In case of “incident”, pre-drying at 80–90°C during 1 to 2 hours is sufficient. Ideally material must be protected from ambient air.

#### Machinery cleaning

High flow thermoplastic must be used, PEHD, PELD or PP.

#### Coloring

**Multiflex®** TES CW/T are easily colorable by using color masterbatch based on PP, PE or ethylene copolymers (EVA).

#### Recycling

**Multiflex®** TES CW/T are 100% recyclable without properties loss. We recommend a maximum level of 10% of recycling material in virgin material.

### INJECTION

Typically, viscosity of SEBS based material is principally dependant of applied shear, so **Multiflex®** TES CW/T must be injected with high injection speed.

Due to their high fluidity, easy mold feeding for single or multiple cavities geometries are possible.

#### Processing parameters

**Screw:**
Geometry: Standard injection machine, L/D > 20, Compression rate 2:1 to 3:1 (if higher, risk of thermal degradation). Screw speed between 100 to 150 rpm ensures thorough melting of the material without excessive temperature generation. Start with 120 rpm.

**Back pressure**
Must be between 7 and 15 bars. This will ensure a uniform melt without severe shear heating.

#### Temperatures (°C)

See Figure 1.
- Feed Zone: 160 +/- 10
- Zone 1: 190 +/- 10
- Zone 2: 200 +/- 10
- Nozzle: 210 +/- 10

### Injection speed

Injection speed and fill time are highly dependent on part geometry, complexity and gate design. Faster speeds typically result in easier mold filling while lower speeds result in better surface in better surface appearance. High injection speed, around 70% of maximum injection speed should be used initially.

#### Holding pressure

Start with a pressure equivalent to 30% of maximum injection pressure. Excessive holding pressure can result in distortion in the area of the gate due to elastomeric characteristics of the material.

#### Holding time

Three seconds can be used to start to ensure sufficient time for gate freeze off. Holding time can be slowly reduced until changes in part appearance or weight occur.

#### Mold

Use conventional mold design (venting, finish, draft). Temperature: from 10°C to 60°C, but typically chosen in the range of 40°C gives good results.

#### Hot Runners

Apply a temperature of 190°C +/- 10.

### EXTRUSION

**Multiflex®** TES CW/T series can be processed on all extrusion machines for PVC, polyolefin. A screw, with a compression ratio of 3 is recommended.
Temperatures (°C)
See Figure 2.
• Feed Zone: 160 +/- 10
• Zone 1: 180 +/- 10
• Zone 2: 190 +/- 10
• Die: 200 +/- 10

Figure 2: Extrusion processing temperatures

HANDLING
PRECAUTIONS
PRODUCT SAFETY
INFORMATION REQUIRED FOR
SAFE USE IS NOT INCLUDED IN
THIS DOCUMENT. BEFORE
HANDLING, READ PRODUCT
AND SAFETY DATA SHEETS
AND CONTAINER LABELS FOR
SAFE USE, PHYSICAL AND
HEALTH HAZARD
INFORMATION. THE SAFETY
DATA SHEET IS AVAILABLE ON
THE DOW CORNING WEBSITE
AT DOWCORNING.COM, OR
FROM YOUR DOW CORNING
SALES APPLICATION
ENGINEER, OR DISTRIBUTOR,
OR BY CALLING
DOW CORNING CUSTOMER
SERVICE.

USABLE LIFE AND
STORAGE
Refer to product label for storage
temperature conditions. Containers
should be kept tightly closed and kept
in cold storage at all times to extend
shelf life. Shelf life is indicated by the
“Use Before” date found on the
product label.

PACKAGING
INFORMATION
This product is available in a variety
of container sizes. Contact your local
Dow Corning sales representative for
information about container sizes
available in your area.

LIMITATIONS
This product is neither tested nor
represented as suitable for medical or
pharmaceutical uses.

HEALTH AND
ENVIRONMENTAL
INFORMATION
To support customers in their product
safety needs, Dow Corning has an
extensive Product Stewardship
organization and a team of Product
Safety and Regulatory Compliance
(PS&RC) specialists available in each
area.

For further information, please see our
website, dowcorning.com or consult
your local Dow Corning
representative.

LIMITED WARRANTY
INFORMATION – PLEASE
READ CAREFULLY
The information contained herein is
offered in good faith and is believed to
be accurate. However, because
conditions and methods of use of our
products are beyond our control, this
information should not be used in
substitution for customer’s tests to
ensure that our products are safe,
effective, and fully satisfactory for the
intended end use. Suggestions of use
shall not be taken as inducements to
infringe any patent.

Dow Corning’s sole warranty is that
our products will meet the sales
specifications in effect at the time of
shipment.

Your exclusive remedy for breach of
such warranty is limited to refund of
purchase price or replacement of any
product shown to be other than as
warranted.

TO THE FULLEST EXTENT
PERMITTED BY APPLICABLE
LAW, DOW CORNING
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ANY OTHER EXPRESS OR
IMPLIED WARRANTY OF
FITNESS FOR A PARTICULAR
PURPOSE OR
MERCHANTABILITY.

DOW CORNING DISCLAIMS
LIABILITY FOR ANY
INCIDENTAL OR
CONSEQUENTIAL DAMAGES.

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