**Polypropylene**

**TIPPLEN K 693**
Impact copolymer for extrusion

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**Description**

*TIPPLEN K 693* is a high molecular weight impact copolymer polypropylene for the extrusion and injection moulding applications. *TIPPLEN K 693* offers excellent impact strength, good stiffness and excellent processability.

**Applications**

*TIPPLEN K 693* is well suited for medium-low weight corrugated cardboards, sheets and blow moulded bottles. This grade is also recommended heavy-duty packaging and large containers. *TIPPLEN K 693* is suitable for food contact. The product complies with Food Contact Regulations.

**Properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Test method</th>
<th>Unit</th>
<th>Typical value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFR (230 °C /2.16 kg)</td>
<td>ISO 1133</td>
<td>g/10 min</td>
<td>2</td>
</tr>
<tr>
<td>Flexural modulus *</td>
<td>ISO 178</td>
<td>MPa</td>
<td>1450</td>
</tr>
<tr>
<td>Modulus of Elasticity in Tension *</td>
<td>ISO 527-1,2</td>
<td>MPa</td>
<td>1350</td>
</tr>
<tr>
<td>Tensile Strength at Yield *</td>
<td>ISO 527-1,2</td>
<td>MPa</td>
<td>29</td>
</tr>
<tr>
<td>Tensile Strain at Yield *</td>
<td>ISO 527-1,2</td>
<td>%</td>
<td>9</td>
</tr>
<tr>
<td>Izod Impact Strength (notched, 23 °C) *</td>
<td>ISO 180/1A</td>
<td>kJ/m²</td>
<td>25</td>
</tr>
<tr>
<td>Izod Impact Strength (notched, -20 °C) *</td>
<td>ISO 180/1A</td>
<td>kJ/m²</td>
<td>5</td>
</tr>
<tr>
<td>HDT (0.45 N/mm²) *</td>
<td>ISO 75-1,2</td>
<td>°C</td>
<td>88</td>
</tr>
<tr>
<td>Rockwell Hardness *</td>
<td>ISO 2039/2</td>
<td>R scale</td>
<td>79</td>
</tr>
</tbody>
</table>

Typical properties, not to be used as specification.

* Average mechanical property values of several measurements carried out on standard injection-moulded test specimens prepared in accordance with ISO 1873-2.
Processing

**TIPPLEN K 693** can be used in conventional extrusion and injection moulding machines. Recommended processing temperature 190 – 240 °C.

Storage and Handling

Pellets are packed in 25 kg PE-LD bags and transported on shrink-wrapped pallets at eligible load of polymer 1375 kg. Heat treated pallets are available as well. Transportation in a road silo or rail silo is also available. For more detailed information please contact Slovnaft Petrochemicals and TVK sales representative.

Since polypropylene is a combustible substance, the fire safety rules applicable for combustible materials in warehouses and store rooms should be observed.

If polymer is stored in conditions of high humidity and fluctuating temperatures, then atmospheric moisture can condense inside the packing. If it happened, it is recommended the pellets to be dried before use. During the storage polypropylene should not be exposed to UV radiation and temperatures above 40 °C. Producer does not take responsibility for any damages caused by adverse storage.

REACH Statement

Polymers are exempt of REACH registration. However, their raw materials which mean monomers and most additives have been registered. Slovnaft Petrochemicals, s.r.o./TVK Plc. is committed to fully respect this new legislation and will only use REACH compliant raw materials.

At this point in time PP TATREN/TIPPLEN does not contain any substances specifically identified as SVHC at levels greater than 0.1%.

Safety

See MSDS.

Recycling

Polypropylene resins are suitable for recycling using modern methods of shredding and cleaning.

In-house production waste should be kept clean to facilitate direct recycling.

Disclaimer

The information provided in this publication has been compiled to the best of our present knowledge. However, in view of the various applications of polypropylene resins and the equipments used, the processing conditions may differ.

The recommendations and data herein are to be construed as informatory only and do not relieve users from carrying out their own tests and experiments prior to processing in order to check suitability for a specific use. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed. Our products are under continuous development, therefore we reserve the right to change the information presented in this brochure at our own discretion.

The REACH statement herein does not constitute legal advice. The REACH statement is provided for informational purpose only.
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January 2011