DESCRIPTION
TIPOLEN FA 244-51 is a film grade of low density polyethylene. It contains 1% n-butyl-acrylate as a co-monomer. It has good molten stability and excellent processability. The films made of this grade have excellent mechanical and optical properties. The grade does not contain any additives.

APPLICATIONS
TIPOLEN FA 244-51 is intended for manufacturing of heavy duty bags, agricultural films, silage films, shrink films, carrier bags, packaging films, household films, films for laminating in thickness 0.07-0.16 mm, blow moulded products, bottles.

TIPOLEN FA 244-51 is suitable for food contact and for manufacturing of pharmaceutical packing products. The product complies with Food Contact and Pharmaceutical Regulations.

PROPERTIES

<table>
<thead>
<tr>
<th>Test method</th>
<th>Unit</th>
<th>Typical value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melt Mass-Flow Rate (MFR) (190 °C /2.16 kg)</td>
<td>ISO 1133/A</td>
<td>g/10 min</td>
</tr>
<tr>
<td>Density (23 °C) *</td>
<td>ISO 1183-2</td>
<td>kg/m</td>
</tr>
<tr>
<td>Tensile Strength (MD/TD) **</td>
<td>ISO 527-3</td>
<td>MPa</td>
</tr>
<tr>
<td>Tensile Strain at Break (MD/TD) **</td>
<td>ISO 527-3</td>
<td>%</td>
</tr>
<tr>
<td>Drat Drop **</td>
<td>ISO 7765-1 method A</td>
<td>g</td>
</tr>
<tr>
<td>Haze **</td>
<td>ISO 14 782</td>
<td>%</td>
</tr>
<tr>
<td>Vicat Softening Temperature *</td>
<td>ISO 306/a 120</td>
<td>°C</td>
</tr>
<tr>
<td>Shore D Hardness *</td>
<td>ISO 868</td>
<td>-</td>
</tr>
</tbody>
</table>

Typical properties, not to be used as specification.
*Density, Vicat Softening Temperature and Shore D Hardness have been measured on standard pressed specimens (ISO 293) conditioned at room temperature (ISO 291)
**Properties on film in M.D./T.D. - thickness of 0.07 mm (MFR=0.3 g/10min) and 0.04 mm (MFR more than 0.3 g/10min), blow up ratio 2:1

PROCESSING
TIPOLEN FA 244-51 can be used in conventional extrusion machines. Recommended processing melt temperatures for extrusion are 170-190 °C.
STORAGE AND HANDLING
Pellets are packed in 25 kg PE-LD bags and transported on stretch or shrink-wrapped pallets at eligible load of polymer 1375 kg. Heat treated pallets are available as well. We use adhesive between the bags in order to avoid their slipping. Pay attention to this fact during the removing of the bags from the pallets. The preferred method is to lift the bag at first without rotation. Transportation in a road silo or rail silo is also available. For more detailed information please contact SLOVNAFT and MOL Petrochemicals sales representative.
Since polyethylene 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 polyethylene 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 relevant additives have been registered. MOL Petrochemicals is committed to fully respect legislation and will only use REACH compliant raw materials. At this point in time TIPOLEN does not contain any substances specifically identified as SVHC at levels greater than 0.1%.

SAFETY
See MSDS.

RECYCLING
Polyethylene resins are suitable for recycling using modern recycling methods. 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 polyethylene resins and the equipment used, the processing conditions may differ. The recommendations and data herein are to be construed as informational 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.
The joint product portfolio of MOL Petrochemicals and Slovnaft provides infinite opportunities.
THE JOINT PRODUCT PORTFOLIO OF MOL PETROCHEMICALS AND SLOVNAFT PROVIDES INFINITE OPPORTUNITIES

TIPOLEN FA 244-51
LDPE FOR BLOWN FILM

TIPELIN / TIPOLEN / TIPPLEN / TATREN / BRALEN+

The joint product portfolio of MOL Petrochemicals and Slovnaft provides infinite opportunities

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