

**HIGH DENSITY POLYETHYLENE  
PHYSICAL AND CHEMICAL PROPERTIES**

| QUALITY CHARACTERISTICS                              | GRADES              |                    |                    |                      |                  |                    |                   |
|--|---------------------|--------------------|--------------------|----------------------|------------------|--------------------|-------------------|
|  | Injection           | Blow Molding       | Pipe Grade (Black) | Pipe Grade (Pure)    | Film Grade       | Pipe Grade (Black) | Cable Grade*      |
| <b>RED Color grades are currently NOT available.</b> | HDPE<br>277-73      | HDPE<br>276-73     | HDPE<br>273-79     | HDPE<br>273-83       | HDPE<br>293-285D | HDPE<br>PE 80B-285 | HDPE<br>271-274 K |
| Density, g/cub.cm                                    | 0.958-0.964         | 0.958-0.963        | 0.957-0.964        | 0.950-0.955          | 0.943-0.949      | 0.940-0.943        | 0.950             |
| Melt flow index (g/10min,190 C)                      | 17.0-25.0<br>(5 kg) | 2.6-3.2<br>( 5 kg) | 0.3-0.5<br>(5 kg)  | 0.4 - 0.65<br>(5 kg) | 0.5 - 0.7        | 0.5-0.8            | 0.30              |
| MFI dispersion within batch limits, %, not more      | +/-10               | +/-10              | +/-10              | +/-10                | +/-10            | +/-12              | +/-10             |
| Inclusions, off, not more                            | 5                   | 5                  | 5                  | 5                    | 3                | 3                  | 10                |
| Ash content, %, not more                             | 0.03                | 0.03               | 0.04               | 0.04                 | 0.06             | 0.06               | 0.05              |
| Volatile matters, %, not more                        | 0.09                | 0.09               | 0.09               | 0.09                 | 0.09             | 0.09               | 0.10              |
| Yield strength, MPa, not less                        | not specified       | 39.227,00          | 39.254,00          | 22,60                | 17,00            | 16,00              | 39.255,00         |
| Tensile strength, MPa, not less                      | not specified       | 39.199,00          | 39.226,00          | 39.201,00            | 39.253,00        | 39.253,00          | 39.254,00         |
| Elongation at break, %, not less                     | not specified       | 700,00             | 700,00             | 700,00               | 700,00           | 700,00             | 700,00            |

**PACKING:** single-layer polyethylene or polypropylene bags 25 +/-0.3kg

\*For cable grades ask for extra technical data.

**APPLICATIONS:**

**HDPE Grade (273-79):**

It is permitted to be used for contact with foodstuff and manufacturing of toys.

**HDPE Grade (276-73):**

It is permitted to be used for contact with foodstuff and manufacturing of toys.

**HDPE Grade (273-83):**

It is intended to be used for production of articles by extrusion method.

**HDPE Grade (293-285D):**

The composition of products made on above polymers includes high-performance thermal stabilizers and processing aids which can improve processing. The grade is intended to process using extrusion method into high strength thin film and for other applications.