

## Low Density Polyethylene ROPOTEN®

### Specification

| №   | Property                                             | Unit              | Value by grade |                        |             | Test method                    |
|-----|------------------------------------------------------|-------------------|----------------|------------------------|-------------|--------------------------------|
|     |                                                      |                   | FB-7-104       | FV-2-109<br>FV-2-109-3 | OV-03-110   |                                |
| 1.  | Melt flow rate at 190 °C and loading 2,16 kg min-max | g/10 min          | 5,90 – 8,00    | 1,70 – 2,30            | 0,20 – 0,40 | ASTM D 1238<br>BDS EN ISO 1133 |
| 2.  | Density at 23 °C min                                 | kg/m <sup>3</sup> | 915            | 917                    | 919         | BDS EN ISO 1183                |
| 3.  | Tensile strength min                                 | MPa               | 10,0           | 12,0                   | 15,5        | ASTM D 638<br>BDS EN ISO 527-1 |
| 4.  | Relative elongation at break min                     | %                 | 500            | 500                    | 560         | ASTM D 638<br>BDS EN ISO 527-1 |
| 5.  | Haze max                                             | %                 | 16,0           | 12,0                   | –           | ASTM D 1003                    |
| 6.  | Vicat softening point min                            | °C                | 80             | –                      | 90          | ASTM D 1525                    |
| 7.  | Volatile compounds max                               | % (m/m)           | 0,07           | 0,07                   | 0,07        | BDS 10086-82                   |
| 8.  | Impurities in 200 g sample max                       | piece             | 5              | 5                      | 10          | BDS 10086-82                   |
| 9.  | Off-spec granules max                                | %                 | 1,7            | 1,7                    | 1,7         | BDS 10086-82                   |
| 10. | Cold resistance max                                  | °C                | – 40           | –                      | – 60        | BDS 10086-82                   |

### Remarks:

- Parameter "Vicat softening point" for grade OV-03-110 is determined for each particular lot, whereas for the other grades it is guaranteed by the manufacturer. It is determined periodically, at least on two lots per quarter.
- Parameter "Cold resistance" for grades FB-7-104 and OV-03-110 is guaranteed by the manufacturer. It is determined periodically, at least on two lots per quarter.

### Product description

Solid product in the form of granules with length ranging from 2 to 6 mm, natural colour, odourless. The product is stable in normal storage and handling conditions.

### Application

Grades **FB-7-104**, **FV-2-109** and **FV-2-109-3** are used for production of agricultural film, film for building and machine-building applications, for production of toys, souvenirs, for production of thin film for small packages, etc.

Grade **OV-03-110** is used for production of household articles, bottles, machinery components and household appliances, pipes, souvenirs, etc.

### Production method

Polymerization of ethylene in autoclave reactors at high pressures and medium temperature in the presence of initiators – organic peroxides.

### Packaging and marking

The product is packed in 25 kg polyethylene bags (milky white or natural colour).

Each bag is marked with: product grade, lot number and date of production.

### Storage

In dry, covered warehouse premises, protected from direct sunlight, away from all sources of heat. Open-air storage is possible for a short period of time.

### Transportation

Covered, clean and dry vehicles, protected from moisture, mechanical damages and pollution.