

Versatile and economical Polyethylene for use in food industry, among others

|                                  |  |
|----------------------------------|--|
| ISO                              | PE-HMW polyethylene, high molecular weight |
| Shape                            | Sheet                                      |
| Color                            | <a href="#">color_nat</a>                  |
| Temperature Range                | -100 and 80 °C                             |
| <a href="#">tbl_temp_melting</a> | 135 °C                                     |
| Density                          | 960 kg/m <sup>3</sup>                      |
| Hardness                         | 62 Rockwell M                              |
| Flame Resistance (UL 94)         | HB   |

### Material information

Basic Polyethylene suitable for many general applications due to a good combination of stiffness and strength. The material is also relatively wear resistant compared to PE1000 and has good chemical resistance.



# FDA

European Food Grade according to EC 1935:2004 USA Food Grade under FDA

### Usage examples

Food industry is used (meat and fish processing) but it is also used in all kinds of mechanical, chemical and electrical applications. including tanks or, for example, drip trays. Also suitable as collision protection.

### Processing

Excellent sawing and processing  
Measurement tolerance 2768-mK

### Item Overview

| Item Code | Item Name                | Width (mm) | Length (mm) |
|-----------|--------------------------|------------|-------------|
| 61600020  | PE-HMW 500 naturel 2 mm  |            |             |
| 61600030  | PE-HMW 500 naturel 3 mm  |            |             |
| 61600040  | PE-HMW 500 naturel 4 mm  |            |             |
| 61600050  | PE-HMW 500 naturel 5 mm  |            |             |
| 61600060  | PE-HMW 500 naturel 6 mm  | 1.010      | 2.020       |
| 61600080  | PE-HMW 500 naturel 8 mm  |            |             |
| 61600100  | PE-HMW 500 naturel 10 mm |            |             |
| 61600120  | PE-HMW 500 naturel 12 mm |            |             |
| 61600150  | PE-HMW 500 naturel 15 mm |            |             |
| 61600200  | PE-HMW 500 naturel 20 mm |            |             |
| 61600250  | PE-HMW 500 naturel 25 mm |            |             |
| 61600300  | PE-HMW 500 naturel 30 mm |            |             |
| 61600350  | PE-HMW 500 naturel 35 mm |            |             |



|          |                             |
|----------|-----------------------------|
| 61600400 | PE-HMW 500 naturel 40 mm    |
| 61600450 | PE-HMW 500 naturel 45 mm    |
| 61600500 | PE-HMW 500 naturel 50 mm    |
| 61600600 | PE-HMW 500 naturel 60 mm    |
| 61600700 | PE-HMW 500 naturel 70 mm    |
| 61600720 | PE-HMW 500 naturel 72 mm    |
| 61600800 | PE-HMW 500 naturel 80 mm    |
| 61600900 | PE-HMW 500 naturel 90 mm    |
| 61601000 | PE-HMW 500 naturel 100 mm   |
| 61601100 | PE-HMW 500 naturel 110 mm   |
| 61601200 | PE-HMW 500 naturel 120 mm   |
| 61601300 | PE 500 plaat naturel 130 mm |
| 61601400 | PE-HMW 500 naturel 140 mm   |
| 61601500 | PE-HMW 500 naturel 150 mm   |

## Water absorption

The extent to which the product absorbs water when tested for 24 hours in water at 23 degrees in accordance with ISO 63.

### Immersion Saturation

0,100 %    0,100 %

## Thermal properties

[tbl\\_thermal\\_explainer](#)

### tbl\_thermische\_geleiding   tbl\_lin\_uitzet\_2360   tbl\_lin\_uitzet\_23100   tbl\_temp\_deflection\_load

0,400 W/(K.m)    0 x 10<sup>-6</sup> m/(m.K)    150 x 10<sup>-6</sup> m/(m.K)    44 °C

## Mechanical properties

[tbl\\_mechanical\\_explainer](#)

### tbl\_tension\_norm   tbl\_tension\_stress\_yield   tbl\_tension\_strain\_yield   tbl\_tension\_strain\_break   tbl\_modulus\_elasticity

ISO 527-1/-2    28 MPa    10 %    50 %    1.300 MPa

## Impact tests

[tbl\\_charpy\\_izod\\_explainer](#)

### tbl\_charpy\_impact   tbl\_charpy\_unnotched   tbl\_charpy\_notched   tbl\_izod\_impact   tbl\_izod\_impact\_notched

ISO 179-1    KJ/m<sup>2</sup>    105 KJ/m<sup>2</sup>    ISO 179-1    0



## Dynamische Coefficient of Friction

[tbl\\_dcf\\_explainer](#)

| <a href="#">tbl_dcf</a> | <a href="#">tbl_dcf_min</a> | <a href="#">tbl_dcf_max</a> | <a href="#">tbl_dcf_wear</a> |
|-------------------------|-----------------------------|-----------------------------|------------------------------|
| ISO 179-1               | 0,150                       | 0,300                       | 300 µm/km                    |

## Electrical properties

Tests related to the electrical resistivity and conductivity of the material.

| Electric strength    | Volume resistance        | Surface resistance        |
|----------------------|--------------------------|---------------------------|
| IEC 60243-1 45 kV/mm | IEC 60093 >10E 14 Ohm.cm | IEC 60093 >10E 13 Ohm/sq. |

## Related materials

| Code | Group Name         | Shape | Color                     |
|------|--------------------|-------|---------------------------|
| 616  | PE-HMW 500 naturel | Sheet | <a href="#">color_nat</a> |
| 618  | PE-HMW 500 zwart   | Sheet | Black                     |

*We provide product information as known by us with great care. We cannot accept any liability for errors and/or inaccuracies and/or incompleteness. Please note that our products are intended for professional use only. For high impact applications and/or combinations of limit values we always recommend to have the properties specific to that situation verified by us. If there are multiple specifications for a product we will use the standard of 2mm or the closest specification.*

