

## Technical Data Sheet

### *Lupolen* 5461B Q471

High Density Polyethylene



#### Product Description

*Lupolen* 5461 B Q 471 is a high density polyethylene (HDPE) powder with high melt viscosity for extrusion of peroxide crosslinked pipes (PE-Xa). Typical application: Crosslinked pipes, PE-Xa (peroxide).

This grade is not intended for medical and pharmaceutical applications.

This grade is supported for use in drinking water applications.

|                          |                                                  |
|--------------------------|--------------------------------------------------|
| <b>Application</b>       | Drinking Water Pipe; Plumbing, Heating & Cooling |
| <b>Market</b>            | Pipe                                             |
| <b>Processing Method</b> | Pipe; Sheet                                      |
| <b>Attribute</b>         | High Density                                     |

| Typical Properties                          | Nominal Value | Units             | Test Method   |
|---------------------------------------------|---------------|-------------------|---------------|
| <b>Physical</b>                             |               |                   |               |
| Melt Flow Rate                              |               |                   |               |
| (190 °C/5.0 kg)                             | 0.5           | g/10 min          | ISO 1133-1    |
| (190 °C/21.6 kg)                            | 10.0          | g/10 min          | ISO 1133-1    |
| MFR measured on powder                      |               |                   |               |
| Density                                     | 0.953         | g/cm <sup>3</sup> | ISO 1183-1    |
| <b>Mechanical</b>                           |               |                   |               |
| Tensile Modulus, (23 °C)                    | 1100          | MPa               | ISO 527-1, -2 |
| Tensile Stress at Yield, (23 °C, 50 mm/min) | 28            | MPa               | ISO 527-1, -2 |
| Tensile Strain at Yield, (23 °C, 50 mm/min) | 8             | %                 | ISO 527-1, -2 |
| <b>Hardness</b>                             |               |                   |               |
| Shore Hardness, (Shore D, 3 sec)            | 64            |                   | ISO 868       |
| Ball Indentation Hardness, (H 132/30)       | 49            | MPa               | ISO 2039-1    |
| <b>Thermal</b>                              |               |                   |               |
| Vicat Softening Temperature                 |               |                   |               |
| (A50)                                       | 130           | °C                | ISO 306       |
| (B50)                                       | 79            | °C                | ISO 306       |

#### Notes

These are typical property values not to be construed as specification limits.

