



# Desmopan 359

300 grade series, ester / Shore hardness D 55 - 59

injection molding grade; with high mechanical strength for articles subject to wear; Application; Injection molded engineering parts; Roller tires; Shoe heels; Ski boot shells

## ISO Shortname

| Property                                        | Test Condition | Unit              | Standard          | Value          |          |         |
|-------------------------------------------------|----------------|-------------------|-------------------|----------------|----------|---------|
|                                                 |                |                   |                   | drying         | annealed | -       |
|                                                 |                |                   |                   | according to   |          |         |
|                                                 |                |                   |                   | specifications |          |         |
| <b>Mechanical properties (23 °C/50 % r. h.)</b> |                |                   |                   |                |          |         |
| C shore hardness, method A                      |                | -                 | ISO 868           |                | 97       |         |
| C shore hardness, method D                      |                | -                 | ISO 868           |                | 59       |         |
| C Ultimate tensile strength                     | 200 mm/min     | MPa               | acc. ISO 527-1,-3 |                | 50       |         |
| C Elongation at break                           | 200 mm/min     | %                 | acc. ISO 527-1,-3 |                | 400      |         |
| C Stress at 100 % strain                        | 200 mm/min     | MPa               | acc. ISO 527-1,-3 |                | 20       |         |
| C Stress at 300 % strain                        | 200 mm/min     | MPa               | acc. ISO 527-1,-3 |                | 40       |         |
| C Compression set                               | 24 h; 70 °C    | %                 | ISO 815           |                | 60       |         |
| C Compression set                               | 72 h; 23 °C    | %                 | ISO 815           |                | 30       |         |
| C Abrasion resistance                           |                | mm <sup>3</sup>   | ISO 4649          |                | 35       |         |
| Impact resilience                               |                | %                 | ISO 4662          |                | 35       |         |
| Tear propagation resistance                     | 500 mm/min     | kN/m              | ISO 34-1          |                | 160      |         |
| Flexural modulus                                | 2 mm/min       | MPa               | ISO 178           |                | 180      |         |
| <b>Thermal properties</b>                       |                |                   |                   |                |          |         |
| Torsional storage modulus                       | -20 °C         | MPa               | ISO 6721-2        |                | 555      |         |
| Torsional storage modulus                       | 23 °C          | MPa               | ISO 6721-2        |                | 105      |         |
| Torsional storage modulus                       | 70 °C          | MPa               | ISO 6721-2        |                | 38       |         |
| Tensile storage modulus                         | -20 °C         | MPa               | ISO 6721-1,-4     |                | 1610     |         |
| Tensile storage modulus                         | 20 °C          | MPa               | ISO 6721-1,-4     |                | 342      |         |
| Tensile storage modulus                         | 60 °C          | MPa               | ISO 6721-1,-4     |                | 120      |         |
| <b>Other properties (23 °C)</b>                 |                |                   |                   |                |          |         |
| C Density                                       |                | kg/m <sup>3</sup> | ISO 1183          |                |          | 1230    |
| <b>Molding conditions</b>                       |                |                   |                   |                |          |         |
| Injection molding-Melt temperature              |                | °C                | -                 | 220 - 240      |          |         |
| Injection molding-Mold temperature              |                | °C                | -                 |                |          | 20 - 40 |
| Maximum drying temperature                      |                | °C                | -                 |                |          | 110     |

C These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.

# Desmopan®

