



# Desmopan 453

400 grade series, ester / Shore hardness D 50 - 54

injection molding grade; grease and oil-resistant; low compression set; good wear resistance; Application; Injection molded engineering parts; Automotive engineering; Coupling elements

## ISO Shortname

| Property                                 | Test Condition | Unit  | Standard          | Value                       |          |         |
|------------------------------------------|----------------|-------|-------------------|-----------------------------|----------|---------|
|                                          |                |       |                   | drying                      | annealed | -       |
|                                          |                |       |                   | according to specifications |          |         |
| Mechanical properties (23 °C/50 % r. h.) |                |       |                   |                             |          |         |
| C shore hardness, method A               |                | -     | ISO 868           |                             | 97       |         |
| C shore hardness, method D               |                | -     | ISO 868           |                             | 52       |         |
| C Ultimate tensile strength              | 200 mm/min     | MPa   | acc. ISO 527-1,-3 |                             | 38       |         |
| C Elongation at break                    | 200 mm/min     | %     | acc. ISO 527-1,-3 |                             | 475      |         |
| C Stress at 100 % strain                 | 200 mm/min     | MPa   | acc. ISO 527-1,-3 |                             | 17       |         |
| C Stress at 300 % strain                 | 200 mm/min     | MPa   | acc. ISO 527-1,-3 |                             | 29       |         |
| C Compression set                        | 24 h; 70 °C    | %     | ISO 815           |                             | 27       |         |
| C Compression set                        | 72 h; 23 °C    | %     | ISO 815           |                             | 15       |         |
| C Abrasion resistance                    |                | mm³   | ISO 4649          |                             | 32       |         |
| Impact resilience                        |                | %     | ISO 4662          |                             | 30       |         |
| Tear propagation resistance              | 500 mm/min     | kN/m  | ISO 34-1          |                             | 180      |         |
| Thermal properties                       |                |       |                   |                             |          |         |
| Tensile storage modulus                  | -20 °C         | MPa   | ISO 6721-1,-4     |                             | 1780     |         |
| Tensile storage modulus                  | 20 °C          | MPa   | ISO 6721-1,-4     |                             | 240      |         |
| Tensile storage modulus                  | 60 °C          | MPa   | ISO 6721-1,-4     |                             | 110      |         |
| Other properties (23 °C)                 |                |       |                   |                             |          |         |
| C Density                                |                | kg/m³ | ISO 1183          |                             |          | 1230    |
| Molding conditions                       |                |       |                   |                             |          |         |
| 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.