



# Desmopan 790

700 grade series, carbonates / Shore hardness A 90 - 94

Extrusion- and injection molding grade; high mechanical strength; Application; Toothed belts; Profiles; Injection molded engineering parts

## 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           |           | 92       |         |
| C shore hardness, method D               |                | -     | ISO 868           |           | 40       |         |
| C Ultimate tensile strength              | 200 mm/min     | MPa   | acc. ISO 527-1,-3 |           | 55       |         |
| C Elongation at break                    | 200 mm/min     | %     | acc. ISO 527-1,-3 |           | 450      |         |
| C Stress at 100 % strain                 | 200 mm/min     | MPa   | acc. ISO 527-1,-3 |           | 10       |         |
| C Stress at 300 % strain                 | 200 mm/min     | MPa   | acc. ISO 527-1,-3 |           | 25       |         |
| C Compression set                        | 24 h; 70 °C    | %     | ISO 815           |           | 50       |         |
| C Compression set                        | 72 h; 23 °C    | %     | ISO 815           |           | 25       |         |
| C Abrasion resistance                    |                | mm³   | ISO 4649          |           | 30       |         |
| Impact resilience                        |                | %     | ISO 4662          |           | 32       |         |
| Tear propagation resistance              | 500 mm/min     | kN/m  | ISO 34-1          |           | 85       |         |
| Thermal properties                       |                |       |                   |           |          |         |
| Torsional storage modulus                | -20 °C         | MPa   | ISO 6721-2        |           | 200      |         |
| Torsional storage modulus                | 23 °C          | MPa   | ISO 6721-2        |           | 22       |         |
| Torsional storage modulus                | 70 °C          | MPa   | ISO 6721-2        |           | 12       |         |
| Tensile storage modulus                  | -20 °C         | MPa   | ISO 6721-1,-4     |           | 630      |         |
| Tensile storage modulus                  | 20 °C          | MPa   | ISO 6721-1,-4     |           | 100      |         |
| Tensile storage modulus                  | 60 °C          | MPa   | ISO 6721-1,-4     |           | 53       |         |
| Other properties (23 °C)                 |                |       |                   |           |          |         |
| C Density                                |                | kg/m³ | ISO 1183          |           |          | 1210    |
| Molding conditions                       |                |       |                   |           |          |         |
| Injection molding-Melt temperature       |                | °C    | -                 | 210 - 230 |          |         |
| Injection molding-Mold temperature       |                | °C    | -                 |           |          | 20 - 40 |
| Extrusion-Melt temperature               |                | °C    | -                 | 200 - 220 |          |         |
| Maximum drying temperature               |                | °C    | -                 |           |          | 80      |

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.