

## Characteristic values

| Tradename            | Tecarim 1000          | Tecarim 1500          | Tecarim 2000          | Tecarim 3000          | Tecarim 4000          | Tecarim 1525          | Tecarim 2025          | Tecast T         | Tecamid 66   |
|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|--------------|
| Additives and colour |                       |                       |                       |                       |                       | 25 % glass            | 25 % glass            |                  |              |
| Raw material group   | PA 6 + 10 % elastomer | PA 6 + 15 % elastomer | PA 6 + 20 % elastomer | PA 6 + 30 % elastomer | PA 6 + 40 % elastomer | PA 6 + 15 % elastomer | PA 6 + 20 % elastomer | Cast polyamide 6 | Polyamide 66 |

### Mechanical properties

|  |                   |               |               |              |              |             |               |               |               |               |
|--|-------------------|---------------|---------------|--------------|--------------|-------------|---------------|---------------|---------------|---------------|
| Density (DIN 53 479)                             | g/cm <sup>3</sup> | 1.10          | 1.12          | 1.12         | 1.14         | 1.13        | 1.31          | 1.32          | 1.14          | 1.14          |
| Tensile strength (DIN 53 455)                    | MPa               | 49*<br>58     | 44*<br>54     | 42*<br>47    | 29*<br>37    | 22*<br>26   | 28*<br>55     | 22*<br>41     | 60*<br>80     | 70*<br>90     |
| Elongation at break (DIN 53 455)                 | %                 | 40<br>250*    | 90<br>320*    | 270<br>400*  | 350<br>370*  | 420<br>420* | 7<br>30*      | 6<br>50*      | 5<br>50*      | 40<br>150*    |
| Modulus of elasticity tensile test (DIN 53 457)  | MPa               | 1200*<br>2450 | 900*<br>2100  | 650*<br>1500 | 430*<br>980  | 230*<br>450 | 1820*<br>3750 | 1750*<br>3800 | 1700*<br>3600 | 2000*<br>3300 |
| Modulus of elasticity flexural test (DIN 53 457) | MPa               | 1160*<br>2500 | 1100*<br>2280 | 790*<br>1700 | 470*<br>1050 | 240*<br>500 | 1980*<br>3850 | 1700*<br>3560 | 2900          | 2800          |
| Shore hardness D (DIN 53 505)                    | MPa               | 74*<br>79     | 73*<br>77     | 66*<br>74    | 58*<br>67    | 52*<br>59   | 72*<br>82     | 67*<br>76     |               |               |
| Impact resistance 23 °C                          | kJ/m <sup>2</sup> | 16<br>31*     | 20<br>42*     | 22<br>48*    | 42           |             | 9<br>9*       | 7<br>10*      | 8.4           | 4             |
| Impact resistance -40 °C                         | kJ/m <sup>2</sup> | 6<br>8*       | 14<br>15*     | 14<br>14*    | 28           |             | 5<br>5*       | 6<br>5*       |               |               |

### Thermal properties

|  |                     |                |                |                |                |                |                |                |     |     |
|--|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----|-----|
| Continuous service temperature <sup>1)</sup> | °C                  | 90 – 100       | 90 – 100       | 90 – 100       | 90 – 100       | 90 – 100       | 90 – 100       | 90 – 100       | 100 | 100 |
| Melting point (DIN 53 736)                   | °C                  | 214            | 214            | 213            | 213            | 214            | 214            | 213            | 220 | 255 |
| Coefficient of thermal expansion (23 °C)     | 10 <sup>-5</sup> /K | appr.<br>7 – 8 | appr.<br>7 – 8 | appr.<br>7 – 8 | appr.<br>7 – 8 | appr.<br>7 – 8 | appr.<br>6 – 7 | appr.<br>6 – 7 | 8   | 8   |

### Various data

|  |        |                     |                     |                     |                     |                     |  |  |                  |                  |
|--|--------|---------------------|---------------------|---------------------|---------------------|---------------------|--|--|------------------|------------------|
| Moisture absorption in standard atmosphere to equilibrium (DIN 53 715) | %      | 2.8                 | 2.5                 | 2.4                 | 1.7                 | 1.6                 |  |  | 2.5              | 2.8              |
| Dielectric constant 50 Hz (DIN 53 483)                                 |        | 15.3*               | 14.9*               | 14.9*               | 14.9*               | 15.4*               |  |  | 3.7              | 5                |
| Dielectric constant 1 MHz (DIN 53 483)                                 |        | 4.1*                | 4.2*                | 4.3*                | 4.6*                | 4.8*                |  |  |                  |                  |
| Dielectric dissipation factor 50 Hz (DIN 53 483)                       |        | 1.0*                | 1.0*                | 1.0*                | 1.2*                | 1.2*                |  |  |                  | ~ 0.02           |
| Dielectric dissipation factor 1 MHz (DIN 53 483)                       |        | 0.1*                | 0.1*                | 0.1*                | 0.1*                | 0.1*                |  |  | 0.03*            | 0.2              |
| Specific volume resistance (DIN 53 482)                                | Ω · cm | 5 · 10 <sup>9</sup> | 5 · 10 <sup>9</sup> | 5 · 10 <sup>9</sup> | 4 · 10 <sup>9</sup> | 2 · 10 <sup>9</sup> |  |  | 10 <sup>10</sup> | 10 <sup>12</sup> |
| Surface resistance (DIN 53 482)  | Ω      | 4 · 10 <sup>8</sup> | 4 · 10 <sup>8</sup> | 4 · 10 <sup>8</sup> | 3 · 10 <sup>8</sup> | 2 · 10 <sup>8</sup> |  |  | 10 <sup>9</sup>  | 10 <sup>10</sup> |
| Creep resistance CTI (IEC 112/VDE 0303-T1)                             |        | 400                 | 500                 | 500                 | 600                 | 600                 |  |  | 600              | 600              |

<sup>1)</sup> Increase by stabilisers

\*) moist, after storage in standard atmosphere 23/50 (DIN 50 014) to equilibrium