

## Material datasheet Material: PAS-LD

### mechanical characteristics

| Characteristic                              | Standard                                | Unit                     | Value |
|---------------------------------------------|-----------------------------------------|--------------------------|-------|
| Yield stress (+23°C, dry)                   | ISO 527-1/-2<br>DIN 53455<br>ASTM D 638 | MPa (N/mm <sup>2</sup> ) | 78    |
| Yield strain (dry)                          | ISO 527-1/-2<br>DIN 53455<br>ASTM D 638 | %                        | 37    |
| Tensile strength (+23°C, dry)               | ISO 527-1/-2<br>DIN 53455<br>ASTM D 638 | MPa (N/mm <sup>2</sup> ) | 78    |
| Elongation at break (+23°C, dry)            | ISO 527-1/-2<br>DIN 53455<br>ASTM D 638 | %                        | 25    |
| Tensile E-modulus (+23°C, dry)              | ISO 527-1/-2<br>DIN 53455<br>ASTM D 638 | MPa (N/mm <sup>2</sup> ) | 3700  |
| Charpy notched impact strength (+23°C, dry) | ISO 179/1eA                             | kJ/m <sup>2</sup>        | 10    |
| Ball indentation hardness (dry)             | ISO 2039-1                              | MPa (N/mm <sup>2</sup> ) | 160   |

### thermal characteristics

| Characteristic                                             | Standard                               | Unit                | Value |
|------------------------------------------------------------|----------------------------------------|---------------------|-------|
| min. Operating temperature (continuous)                    |                                        | °C                  | -50   |
| max. service temperature (continuous)                      |                                        | °C                  | 105   |
| max. service temperature (short-term)                      |                                        | °C                  | 150   |
| Heat deflection temperature HDT/A (1.8 N/mm <sup>2</sup> ) | ISO 75-1/-2<br>DIN 53461<br>ASTM D 648 | °C                  | 110   |
| Coefficient of linear thermal expansion (23 - 60°C)        | ISO 11359                              | 10 <sup>-6</sup> /K | 95    |
| Thermal conductivity (+23°C)                               | DIN 52612                              | W/(m×K)             | 0.31  |

### combustibility characteristics

| Characteristic    | Standard        | Unit  | Value |
|-------------------|-----------------|-------|-------|
| UL94 flammability | IEC 60695-11-10 | class | HB    |

These data are guideline values which are subject to change depending on the type of manufacture of the test specimens and stress. These data are based on our own experience and on manufacturer's data. However, they are provided without guarantee, since each application is different and must be considered with reference to its specific influence parameters.

#### electrical characteristics

| Characteristic                                          | Standard                                         | Unit | Value            |
|---------------------------------------------------------|--------------------------------------------------|------|------------------|
| Dielectric constant, relative permittivity (1 MHz, dry) | DIN IEC 60250<br>(DIN VDE 0303-4)<br>ASTM D 150  |      | 3.8              |
| Dielectric loss factor (1 MHz, dry)                     | DIN IEC 60250<br>(DIN VDE 0303-4)<br>ASTM D 150  |      | 0.008            |
| Surface resistivity (dry)                               | DIN IEC 60093<br>(DIN VDE 0303-30)<br>ASTM D 257 | Ω    | 10 <sup>13</sup> |

#### physical characteristics

| Characteristic         | Standard                            | Unit              | Value |
|------------------------|-------------------------------------|-------------------|-------|
| Density, Gross density | ISO 1183<br>DIN 53479<br>ASTM D 792 | g/cm <sup>3</sup> | 1.43  |

#### chemical characteristics

| Characteristic          | Standard | Unit | Value                |
|-------------------------|----------|------|----------------------|
| UV light and weathering |          |      | conditionally stable |
| Physiology              | Faigle   |      | suitable             |