

TECACOMP PA46 TF30 natural 1014745 - Compounds

Chemical Designation

PA 46 (Polyamide 46)

Colour

natural

Density

1.38 g/cm³

Fillers

PTFE

Main features

- good slide and wear properties
- moderate heat resistance
- high creep resistance
- short cycle time
- low viscosity

Target Industries

- automotive industry

| <i>Mechanical properties</i> | <i>parameter</i> | <i>value</i> | <i>unit</i> | <i>norm</i> | <i>comment</i> |
|--------------------------------------|------------------|--------------|-------------------|--------------------|-------------------------|
| Tensile strength | | 65 | MPa | DIN EN ISO 527-1 | |
| Modulus of elasticity (tensile test) | | 2400 | MPa | DIN EN ISO 527-1 | |
| Elongation at break (tensile test) | | 9 | % | DIN EN ISO 527-1 | |
| Impact strength (Charpy) | | 56 | kJ/m ² | DIN EN ISO 179-1eU | |
| <i>Thermal properties</i> | <i>parameter</i> | <i>value</i> | <i>unit</i> | <i>norm</i> | <i>comment</i> |
| Glass transition temperature | | 75 | °C | - | 1) (1) literature value |
| Melting temperature | | 295 | °C | - | 2) (2) literature value |
| Service temperature | short term | 220 | °C | - | 3) (3) literature value |
| Service temperature | long term | 130 | °C | - | 4) (4) literature value |
| <i>Other properties</i> | <i>parameter</i> | <i>value</i> | <i>unit</i> | <i>norm</i> | <i>comment</i> |
| <i>Processing parameter</i> | <i>parameter</i> | <i>value</i> | <i>unit</i> | <i>norm</i> | <i>comment</i> |
| processing temperatures | | 280 - 320 | °C | - | |
| Mould temperature | | 80 - 130 | °C | - | |

→ This material can be processed as a thermoplastic taking the normal technical provisions into account. The above mentioned information refers exclusively to the injection moulding process.

→ Back pressure and injection rate should be adjusted to the component geometry accordingly. The optimum processing temperature depends upon the respective geometry of the moulded part and can be different from machine to machine.

| <i>Predrying</i> | <i>parameter</i> | <i>value</i> | <i>unit</i> | <i>norm</i> | <i>comment</i> |
|---------------------------------------|------------------|--------------|-------------|-------------|----------------|
| Permissible residual moisture content | | < 0,05 | % | - | |
| Drying temperature | | 80 - 90 | °C | - | |
| Drying time | | 2 - 8 | h | - | |

→ PA46 acts hygroscopic and can absorb moisture from the ambient atmosphere. On this account, conventional hot air dryers can't fulfil the required moisture level. In the case of PA46 it is recommended to use a dehumidified air dryer (dew point between - 30 and - 40 °C) or a vacuum dryer.

→ Information on storage and shelf life: The granules must be stored in dry, normally tempered rooms and in closed containers. For moisture-sensitive materials, the granules must be sealed airtight. Protection against direct sunlight must be guaranteed. The granules are usually subject to the requirements of no shelf life limitation. Shelf Life may be limited by some additives.

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