


material specification

s-mart PTFE ekonol

(polytetrafluoro ethylene filled with 10% ekonol)

| property | condition | unit | value | standard |
|----------------------------------|----------------|---|---|-------------------|
| color | | |  cream | |
| density/specific gravity | 23° C | g/cm ³ | 2,04 | DIN 53479 |
| hardness | 23° C | Shore D | 56 ± 3 | ISO 868 |
| ball indentation hardness | 23° C | MPa | 28 ± 5 | DIN 53456 H135/30 |
| tensile strength | 23° C | MPa | 20 | ASTM D 4745-79 |
| elongation at break | 23° C | % | 250 | ASTM D 4745-79 |
| compressive strength | 23° C | MPa | 11 | DIN 53455 |
| thermal conductivity | 23° C | $\frac{J \times 10^3}{m \times h \times K}$ | 5,4 | DIN 52612 |
| coefficient of thermal expansion | 25° C - 200° C | K ⁻¹ x 10 ⁻⁵ | 8,4 | |
| coefficient of friction* | 23° C | μ | 0,18 | |
| minimum service temperature | | °C | -200 | |
| maximum service temperature | | °C | 260 | |

* dynamic coefficient of friction, dry, steel 16MnCr5: v=0,6m/s; p=0,05 MPa; t=5h

the mentioned data are only valid for test pieces of the corresponding ISO, DIN and ASTM standards and cannot be directly related to gaskets and joints. the values which are marked with the symbols greater than (≥) and smaller than (≤) are nominal values and must be fulfilled of each batch. all values which are not marked are typical values which are only tested on selected samples.

resistant to: almost all chemicals

not resistant to: halogenides, elemental uorine, CF₃, molten alkali metals

turnability: good

tool-abrasion: medium