

Technical Data Sheet

Fibracon[®] PTFE - Virgin

Product characteristics

- Unmatched chemical resistance
- Wide operating temperature -200°C to +260°C
- Exceptionally low co-efficient of friction

Product applications

- FDA approved grades available, used in medical and food industry
- Grades evaluated to NORSOK M710 for oil and gas applications
- Chemical processing – seal, pumps and valves

	Test method	Unit	Guideline Value
General properties			
Density	ASTM D4894	g/cm ³	2.17
Mechanical properties			
Hardness	Needle	Shore D	54 - 60
Tensile Strength (23°C)	ASTM D4894	N/mm ²	25
Elongation at Break	ASTM D4894	%	250

This data provides typical values on a small selection of properties of the material and should only be used as a guide to the generic material performance

Further information available:

- Detailed technical data on other mechanical, electrical and thermal properties.
- Specific brands or grades available in this material.
- Approvals and specifications.

Material selection - How we can help:

- Impartial advice: we are not tied to a particular brand or supplier.
- Compare candidate materials and report according to your requirements.
- Extensive source of standard and bespoke materials.
- Made-to-order sampling service for material and component evaluation.
- Guidance on component design.
- Project management, from prototype to production.

The short-term maximum application temperature only applies to very low mechanical stress for a few hours. The long-term maximum application temperature is based on the thermal ageing of plastics by oxidation, resulting in a decrease of the mechanical properties. This applies to an exposure to temperatures for at least 5,000 hours causing a 50% loss of the tensile strength from the original value (measured at room temperature). This value says nothing about the mechanical strength of the material at high application temperatures. In case of thick-walled parts, only the surface layer is affected by oxidation from high temperatures. With the addition of antioxidants, a better protection of the surface layer is achieved. In any case, the center area of the material remains unaffected. The minimum application temperature is basically influenced by possible stress factors like impact and/or shock under application. The values stated refer to a minimum degree of impact stress. The electrical properties as stated result from measurements on natural, dry material. With other colours (in particular black) or saturated material, there may be clear differences in the electrical properties. The data stated above are average values ascertained by statistical tests on a regular basis. They are in accordance with DIN EN 15860. They serve as information about our products and are presented as a guide to choose from our range of materials. This, however, does not include an assurance of specific properties or the suitability for particular application purposes that are legally binding. Since the properties also depend on the dimension of the semi-finished products and the degree of crystallization (e.g. nucleating by pigments), the actual values of the properties of a particular product may differ from the indicated values.

