

material specification

s-mart PTFE graphite

(polytetrafluoro ethylene filled with 15% graphite)

property	condition	unit	value	standard
color			● dark grey	
density/specific gravity	23° C	g/cm ³	2,13	DIN 53479
hardness	23° C	Shore D	60 ± 3	ISO 868
ball indentation hardness	23° C	MPa	26 ± 5	DIN 53456 H135/30
tensile strength	23° C	MPa	16	ASTM D 4745-79
elongation at break	23° C	%	140	ASTM D 4745-79
compressive strength	23° C	MPa		DIN 53455
thermal conductivity	23° C	$\frac{J \times 10^3}{m \times h \times K}$	4,0	DIN 52612
coefficient of thermal expansion	25° C - 200° C	K ⁻¹ x 10 ⁻⁵	11,2	
coefficient of friction*	23° C	μ	0,14	
minimum service temperature		°C	-200	
maximum service temperature		°C	260	
young's modulus	23° C	MPa		DIN 53457
* 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