

MATERIAL DATA SHEET

TETRON S

Features

Tetron S is virgin PTFE. Chemically inert, lowest co-efficient of friction of all materials, with ultimate non-stick properties. Excellent insulation characteristics and with continuous temperature resistance of 260°C.

Benefits

Tetron S offers the following performance advantages:

- Excellent chemical resistance
- Extremely low friction/non-stick properties
- FDA compliant (food safe)
- High temperature resistance (260°C continuous)

Typical Applications

- Gaskets and tapes
- Mechanical seals
- Electrical insulators
- Bridge bearing pads
- Laboratory equipment (e.g. test tubes)
- Tank and pipe linings

DELIVERY PROGRAM

FEATURE	MOULDED	EXTRUDED
Rod	N/A	3 – 140mm Length: 1000/2000mm
Billet	50 to 205mm. Length: 120-150mm 30 to 330mm. Length: 300mm (Indent) 340 to 700mm. Length: 100mm (Indent)	N/A
Cylinder / Tube	OD: 50 to 800mm. Length: 80-150mm OD: 40 to 1815mm. Length: 100-300mm (Indent)	OD: 10 - 165mm Length: 1000/2000
Sheet	Thickness: 8-50mm Sheet Size : 610 x 610mm Thickness: 4-100mm Sheet Size : 2000 x 1000mm, 1200 x 1200mm	N/A
Tape	Thickness: 0.5mm to 3mm Tape Width: 1200mm	N/A

PHYSICAL PROPERTIES

TETRON S				
TYPICAL PROPERTIES	UNIT	METHOD	DATA - MOULDED	DATA - EXTRUDED
PHYSICAL - MECHANICAL				
Density	g/cm ³	ASTM D792	2,14 – 2,18	2,14 – 2,18
Hardness – Shore D	/	ASTM D2240	≥ 51	≥ 50
Tensile Strength – CD*	N/mm ²	ISO 527; v = 50mm/min microtensile die	≥ 24	≥ 20
Elongation at Break – CD*	%	ISO 527; v = 50mm/min microtensile die	≥ 250	≥ 200
Compressive Strength at 1% Deformation – CD*	N/mm ²	ASTM D695	4–5	≥ 4
Deformation under Load at Room Temperature After 24 Hours at 13,7 N/mm ² – CD*	%	ASTM D621	≤ 17	≤ 17
Permanent Deformation Under Load After 24 Hours of Rest at Room Temperature – CD*	%	ASTM D621	≤ 9	≤ 8
TRIBOLOGICAL				
Dynamic Coefficient of Friction		ASTM D1894 / ASTM D3702	0,06	0,06
THERMAL				
Service Temperature (Min-Max)	°C		-200 / +260	-200 / +260
Thermal Expansion Coefficient (Linear) 25–100°C	10 ⁻⁵ (mm/mm)/°C		12–13	12–13
ELECTRICAL				
Dielectric Strength (Specimen 0,5 mm Thick)	KV/mm	ASTM D149	≥ 40	≥ 20
Dielectric Constant at 60 Hz and 10 ⁶ Hz	/	ASTM D150	2,05 – 2,40	
Volume Resistivity	Ω • cm	ASTM D257	10 ¹⁸	10 ¹⁸
Surface Resistivity	Ω	ASTM D257	10 ¹⁷	10 ¹⁷

*CD=Cross Direction