



## Rhondama Material Data Sheets for Manufactured Parts

# Virgin PTFE

(FDA Approved)

This White material has outstanding chemical properties and the lowest coefficient of friction for any solid material. The wide range of temperature (-200°C to +260°C) and the excellent chemical properties make V-PTFE a material suitable for many sealing applications using chemicals. Due to the poor mechanical properties of virgin PTFE this material should not be used for dynamic application, especially in water.

### Resistant against

Water up to 90°C, HFA Fluids, HFB Fluids, HFC Fluids, HFD Fluids, Mineral Oils, Vegetable Oils, Fuels, Ozone and Air Up to 200 °C

### Applicable for

Guide Rings, Bushes, Back Up Rings, Low Friction Applications, Chemical Resistance Applications

### Mechanical, Physical & Thermal Properties

Properties	Condition	Standard	Unit	Value	Unit	value
density/specific gravity	23 °C	DIN 53479	kg/m <sup>3</sup>	2150	g/cm <sup>3</sup>	2,15
hardness	23 °C	ISO 868	Shore D	55 ±3	Shore D	55 ±3
ball indentation hardness	23 °C	DIN 53456 H	MPa	23 ±5	psi	3335 ±725
		135/30				
tensile strength	23 °C	ASTM D 4745-79	MPa	≥ 27	psi	≥ 3916
elongation at break	23 °C	ASTM D 4745-79	%	≥ 250	%	≥ 250
compressive strength	23 °C	DIN 53455	MPa	≥ 4	psi	≥ 580
coefficient of thermal expansion	25 °C - 200 °C		K-1 * 10-5	19	K-1 * 10-5	19
coefficient of friction *	23 °C		μ	0,08	μ	0,08
minimum service temp			°C	-200	°F	-328
maximum service temp			°C	260	°F	500

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

