

**PTFE D46** **46 % Bronze + 1 % pigments + 53 % virgin PTFE**  
 Mechanical, Physical and Thermal Properties

properties	condition	standard	unit		unit	
colour				bronze blue		bronze blue
density/specific gravity	23 °C	DIN 53479	kg/m <sup>3</sup>	3200	g/cm <sup>3</sup>	3,2
hardness	23 °C	ISO 868	Shore D	63 ±3	Shore D	63 ±3
ball indentation hardness	23 °C	DIN 53456 H 135/30	MPa	35 ±5	psi	5075 ±725
tensile strength	23 °C	ASTM D 4745-79	MPa	≥ 24	psi	≥ 3480
elongation at break	23 °C	ASTM D 4745-79	%	≥ 170	%	≥ 170
compressive strength	23 °C	DIN 53455	MPa	≥ 10	psi	≥ 1450
thermal conductivity		DIN 52612	$\frac{J \cdot 10^3}{m \cdot h \cdot K}$	≥ 4,2	$\frac{J \cdot 10^3}{m \cdot h \cdot K}$	≥ 4,2
coefficient of thermal expansion	25 °C - 200 °C		K <sup>-1</sup> * 10 <sup>-5</sup>	≥ 8,5	K <sup>-1</sup> * 10 <sup>-5</sup>	≥ 8,5
coefficient of friction *	23 °C		μ	≥ 0,15	μ	≥ 0,15
minimum service temperature			°C	-200	°F	-328
maximum service temperature			°C	260	°F	500
young's modulus		DIN 53457	MPa	≥ 1420	psi	≥ 206000

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

**Chemical Properties**

Filled PTFE

Resistant to almost all chemicals

Not resistant to halogenides, elemental fluorine, CF<sub>3</sub>, molten alkali metals

Foodstuff applications -