

PTFE PEEK

## Mechanical, Physical and Thermal Properties

10 % PEEK + 90 % virgin PTFE

properties	condition	standard	unit		unit	
colour				cream		cream
density/specific gravity	23 °C	DIN 53479	kg/m³	2050	g/cm³	2,05
hardness	23 °C	ISO 868	Shore D	60 ±3	Shore D	60 ±3
ball indentation hardness	23 °C	DIN 53456 H 135/30	MPa		psi	
tensile strength	23 °C	ASTM D 4745-79	MPa	≥ 21	psi	≥ 3045
elongation at break	23 °C	ASTM D 4745-79	%	≥ 220	%	≥ 220
compressive strength	23 °C	DIN 53455	MPa		psi	
thermal conductivity		DIN 52612	$\frac{J \cdot 10^3}{m \cdot h \cdot K}$		$\frac{J \cdot 10^3}{m \cdot h \cdot K}$	
coefficient of thermal expansion	25 °C - 200 °C		$K^{-1} \cdot 10^{-5}$		$K^{-1} \cdot 10^{-5}$	
coefficient of friction *	23 °C		μ		μ	
minimum service temperature			°C	-200	°F	-328
maximum service temperature			°C	260	°F	500
young's modulus	23 °C	DIN 53457	MPa		psi	

\* 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,  $\text{CF}_3$ , molten alkali metals

## Not resistant to halogenates, etc. Foodstuff applications      FDA