

# Material Properties

1130

## Material code: 1130

1130 is a polymer and carbon filled PTFE (polytetrafluorethylene) material that is significantly softer than 1030, but it is a much better sealing material with good wear properties. This material has excellent tensile strength and elongation for PTFE based materials. This material is specifically designed for demanding sealing/wear applications where PTFE is deemed appropriate

Physical Properties	ASTM Method	Typical Values
Specific Gravity	D792	2.05 gr/cm <sup>3</sup>
Water Absorption (24 hrs. @ 74°F)	D570	0.005 %
Color	N/A	Black
<b>Mechanical Properties</b>		
Tensile Strength	D638	2700 psi
Elongation	D638	
• At Break		60%
Flexural Strength	D790	2100 psi
Flexural Modulus	D790	190,000 psi
Compressive Strength	D695	1500 psi
Compressive Modulus	D695	90,000 psi
Impact Strength (Izod, notched)	D256	3 ft-lb/in
Hardness	Shore D	63
<b>Tribological Properties</b>		
Coefficient of friction	D3702	
• Static		0.26
• Dynamic		0.22
Wear rate (PV: 20,000 psi-fpm)	D3702	0.9 uin/min
<b>Thermal Properties</b>		
Coefficient of Linear Thermal Expansion (78-400°F)	D696	86 10 <sup>-6</sup> °F
Heat Deflection Temperature (F/C @ 264 psi)	D648	150°F
Glass Transition Temperature (T <sub>g</sub> )	D3418	266°F
Melting Point		621°F
Continuous Service Temperature (Max @ no load)		500°F
<b>Electrical Properties</b>		
Volume Resistivity (ohm-cm) @ 50% RH	D257	10 <sup>13</sup>
Dielectric Strength	D149	KV/mm
Dielectric Constant	D150	Hz, 200°F
Tensile Strength Change		+6 %
Elongation Change		-14 %

**Note:** Property values should be interpreted as typical rather than minimum value. All technical information and recommendations are presented in good faith, and based upon laboratory and real-world tests believe to be reliable and practical. However, K.C. Seals, Inc. cannot guarantee the accuracy or completeness of this information, and it is the customers' responsibility to determine product suitability to any given application.