

CMS40

CMS40 is a 25% carbon-graphite filled PTFE (polytetrafluorethylene) material. Its ability to run under dry or wet conditions along with its low wear rate makes it an ideal high temperature bearing material. It also offers high load bearing capability, relative to other fluoropolymers, for many general-purpose industrial applications.

Physical Properties	ASTM Method	Typical Values
Specific Gravity	D792	2.06 gr/cm ³
Water Absorption (24hrs. @73.4°F)	D570	0.007 %
Color	N/A	Black

Mechanical Properties

Tensile Strength	D1708	2300 psi
Tensile Elongation	D1708	105 %
Flexural Strength	D790	4300 psi
Elastic Modulus (1Hz, Room Temperature)	-	240,000psi
Compressive Strength	D695	2500 psi
Compressive Modulus	D695	85,000 psi
Impact Strength (Izod, notched)	D256	2 ft-lb/in
Hardness	Shore D	63

Tribological Properties

Coefficient of Friction		
Static	D3702	0.08
Dynamic	D3702	0.09
Wear Rate (PV: 2,000 psi-fpm)	D3702	µin/min

Thermal Properties

Coefficient of Linear Thermal Expansion (78 to 200°F)		47 10 ⁻⁶ /°F
Heat Deflection Temperature (@264 psi)	D648	150 °F
Glass Transition Temperature (T _g)	D3418	266 °F
Continuous Service Temperature (Max @ no load)		500 °F
Melting Point		621 °F

Electrical Properties

Volume Resistivity	D257	10 ¹⁶ ohm-cm
Dielectric Strength	D149	KV / mm
Dielectric Constant	D150	50Hz, 200°C