CMS42

CMS42 is a 60% bronze filled PTFE (polytetrafluoroethylene). It provides better creep resistance than most of the PTFE alloys. It possesses high compressive strength and good wear and sliding properties. Most common applications include piston rings (compressors), bushes, bearings, and wear pads for high compression sliding applications. Certain chemicals may easily attack bronze.

Physical Properties	***ASTM Method***	***Typical Values***
Specific Gravity	D792	3.88 gr/cm3
Water Absorption (24hrs. @73.4°F)	D570	0.01 %
Color	N/A	Dark Brown
Mechanical Properties		
Tensile Strength	D1708	1,750 psi
Tensile Elongation	D1708	100 %
Flexural Strength	D790	3,750 psi
Flexural Modulus	D790	196,000 psi
Compressive Strength	D695	1,300 psi
Compressive Modulus	D695	125,000 psi
Impact Strength (Izod, notched)	D256	161 J/m
Hardness Shore	D 65	
Tribological Properties		
Coefficient of Friction		
Static	D3702	0.21
Dynamic	D3702	0.14
Wear Rate (PV: 2,000 psi-fpm)	D3702	6 µin/min
Thermal Properties		
Thermal Conductivity		0.80 W/m.K
Coefficient of Linear Thermal Expansion (78 to 300 oF)	D696	53 10-6/°F
Heat Deflection Temperature (@264 psi)	D648	160 °F
Glass Transition Temperature (Tg)		D3418
Continuous Service Temperature (Max @ no load)		500 °F
Melting Point		621 °F
Electrical Properties		
Volume Resistivity	D257	1 107 ohm-cm
Dielectric Strength (1/8” thick)	D149	Conductive KV/mm
Dielectric Constant	D150	50Hz,

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