CMS43

CMS43 is a bronze and molybdenum disulfide filled PTFE (polytetrafluorethylene) material (aka "BMT"). Due to the higher thermal conductivity of bronze, this material dissipates heat substantially faster than unfilled PTFE. It thus exhibits excellent tribological properties at higher speeds in dynamic applications. Deformation under load is also improved due to the bronze content. Since some harsh chemicals attack bronze, use in corrosive environments must be carefully examined.

Physical Properties	**ASTM Method**	**Typical Values**
Specific Gravity	D792	3.85 gr/cm3
Water Absorption (24hrs. @73.4°F)	D570	0.018 %
Color	N/A	Dark Brown
Mechanical Properties		
Tensile Strength	D1708	2100 psi
Tensile Elongation	D1708	130 %
Flexural Strength	D790	3500 psi
Flexural Modulus	D790	210,000psi
Compressive Strength	D695	3200 psi
Compressive Modulus	D695	114,000 psi
Impact Strength (Izod, notched)	D256	ft-lb/in
Hardness	Shore D	68
Tribological Properties		
Coefficient of Friction		
Static	D3702	0.07
Dynamic	D3702	0.12
Wear Rate (PV: 2,000 psi-fpm)	D3702	µin/min
Thermal Properties		
Coefficient of Linear Thermal Expansion (78 to 400°F)		50 10^{-6}/°F
Heat Deflection Temperature (@264 psi)	D648	°F
Glass Transition Temperature (Tg)	D3418	
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

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