

Duraelectric™ D

High-performance elastomeric material



Duraelectric™ D is a high-performance elastomeric material for use as wire insulation, cable jacketing, conduit jacketing, cable/conduit overmolding, and molded boots.

NOTABLE ATTRIBUTES

- **Service Temperature Range: -65°C to 260°C**
- **Fire Resistant and Low Smoke-Zero Halogen (LSZH), PFAS-free**
- **Resistant to common aerospace, military and industrial fluids**
- **NASA MAPTIS Registered, material code 09717**

Duraelectric™ Physical Properties		
Property	Typical Result	Test Method
Hardness, Shore A	60	ASTM D2240
Tensile Strength, psi	1100	ASTM D412
Elongation, %	500	ASTM D412
Tear Strength, Die B, ppi	150	ASTM D624
Low Temperature Impact at -65°C	Pass/No Cracks	ASTM D2137
Accelerated UV/Sunlight Resistance, 53 Year Equivalent Exposure	Pass/Excellent	IEC 60068-2-5
Ozone Resistance	Pass/No Cracks	ASTM D1149
Zero Halogen	Pass	IEC 60754-1

Duraelectric™ Electrical Properties		
Property	Typical Result	Test Method
Dielectric Strength, kV/mm	19	ASTM D149
Comparative Tracking Index, VAC	> 600	ASTM D3638

Duraelectric™ Fire Resistance Properties	
Property	Typical Result
Flammability	
Oxygen Index, %	45
FAR 25.853, 12 Second Vertical	Pass
FAR 25.853, 60 Degree	Pass
FAR 27.1365 b,c	Pass
BSS7230 Method F2	Pass
IEC60614-1	Pass
EN60695-2-12, 850°C Glow-Wire	Pass
UL1685 FT4/IEEE1202	Pass
Smoke Density	
BSS7238	Pass
NES 711	Pass
EN 60695-2-11	Pass
UL1685 FT4/IEEE1202	Pass
Combustion Toxicity	
BSS7239	Pass
NES 713	Pass
SMP800 C	Pass

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Duraelectric™ Fluid Resistance MIL-STD-810G, Method 504, Procedure II	
A-A-52624A Type I and Type II	MIL-L-23699 Gas Turbine Engine Oil
Amerex AFFF Fire Extinguishing Foam	MIBK
AMS 1432 Potassium Acetate De-Icer	Polyalphaolefin (PAO)
AMS 1450A Insecticide	Propylene Glycol Antifreeze
Calla 855 Aircraft Cleaner	Pyrethrum-based Insecticides
CBRN/NBC Washdown*	R-134 Refrigerant
Coolanol 25R Silicate Ester Fluid	Royco 500 Gas Turbine Engine Oil
E36 Runway De-Icer	Royco 756 Hydraulic Fluid
Ethylene Glycol Antifreeze	Skydrol 5
Isopropyl Alcohol	Skydrol 500 B-4
JP-8	Skydrol LD-4
MIL-C-85570 Aircraft Cleaner	Supertropical Bleach (STB)*
MIL-C-87252 Coolant	TT-I-735
MIL-H-5606 Hydraulic Fluid	Water
*Tested in accordance with TOP-8-111 Duraelectric™ is not recommended for continuous immersion in petroleum based fuels, solvents, crude oil, or Type V phosphate ester fluids.	

Duraelectric™ Outgassing Properties			
Condition	CVCM	TML	Test Method
Without Special Processing	0.27%	0.94%	ASTM E 595
After Bake Out	0.06%	0.16%	ASTM E 595

IMPORTANT NOTE

Data are generated in accordance with prevailing national and international test standards and should be used only for material comparison. Actual property values are highly dependent on part geometry, mold configuration, and processing conditions. Please contact the factory to discuss the use of Duraelectric™ in specific applications or environments.