

Additive Free Polymer LDPE Disk

Grade: Additive Free Polymer

Formula: LDPE

Thickness: 0.18mm

Diameter: 8mm

Structure: Biaxially Oriented

CAS Number: 9002-88-4

UOM Code: 119-947-04

SKU: 1000030838-group

Product Code: ET31-FM-000201

Material Properties for Polymers

Chemical Resistance

Element	Value
Acids - concentrated	Good-Fair
Acids - dilute	Good
Alcohols	Good
Alkalis	Good
Aromatic hydrocarbons	Fair-Poor
Greases and Oils	Good-Fair
Halogenated Hydrocarbons	Fair-Poor
Halogens	Fair-Poor
Ketones	Good-Fair

Electrical Properties

Element	Value
Dielectric constant @ 1MHz	2.2-2.35
Dissipation factor @ 1MHz	1-10x 10 ⁻⁴
Dielectric strength(kV mm ⁻¹)	27
Surface resistivity(Ohm/sq)	10 ¹³
Volume resistivity(Ohmcm)	10 ¹² -10 ¹⁴

Physical Properties

Element	Value
Flammability	HB
Radiation resistance	Fair
Refractive index	1.51
Resistance to Ultra-violet	Poor
Limiting oxygen index(%)	17
Water absorption - over 24 hours(%)	0.015
Density(gcm ³)	0.92

Mechanical Properties

Element	Value
Hardness - Rockwell	D41-46 - Shore
Elongation at break(%)	400
Tensile modulus(GPa)	0.1-0.3
Izod impact strength(J m ²)	1000
Tensile strength(MPa)	May-25

Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa(C)	50
Heat-deflection temperature - 1.8MPa(C)	35
Lower working temperature(C)	-60
Upper working temperature(C)	50-90
Specific heat(J K ⁻¹ kg ⁻¹)	1900-2300
Thermal conductivity(W m ⁻¹ K ⁻¹)	0.33@23°C
Coefficient of thermal expansion(x10 ⁻⁴ K ⁻¹)	100-200