

HDPE Film

Formula: HDPE

Thickness: 25mm

Length 1: 150mm

Length 2: 150mm

CAS Number: 9002-88-4

UOM Code: 103-368-90

SKU: 1000016786-group

Product Code: ET32-SH-000280

Material Properties for Polymers

Chemical Resistance

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

Mechanical Properties

Element	Value
Coefficient of friction	0.29
Hardness - Rockwell	D60-73 - Shore
Poisson's ratio	0.46
Tensile modulus(GPa)	0.5-1.2
Izod impact strength(J m ²¹)	20-210
Tensile strength(MPa)	15-40

Electrical Properties

Element	Value
Dielectric constant @ 1MHz	2.3-2.4
Dissipation factor @ 1MHz	1-10x 10 ⁻⁴
Dielectric strength(kV mm ⁻¹)	22
Surface resistivity(Ohm/sq)	10 ¹³
Volume resistivity(Ohmcm)	10 ¹² -10 ¹⁴

Physical Properties

Element	Value
Flammability	HB
Radiation resistance	Fair
Refractive index	1.54
Resistance to Ultra-violet	Poor
Limiting oxygen index(%)	17
Water absorption - over 24 hours(%)	0.01
Density(gcm ⁻³)	0.95

Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa(C)	75
Heat-deflection temperature - 1.8MPa(C)	46
Upper working temperature(C)	55-120
Specific heat(J K ⁻¹ kg ⁻¹)	1900
Thermal conductivity(W m ⁻¹ K ⁻¹)	0.45-0.52@23°C
Coefficient of thermal expansion(x10 ⁻⁴ K ⁻¹)	100-200