

HDPE Coil

Formula: HDPE

Thickness: 0.01mm

Coil Width: 600mm

Length: 1m

CAS Number: 9002-88-4

UOM Code: 178-010-63

SKU: 1000067216-group

Product Code: ET32-FM-000110

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 |