

DuPont™ Kapton® HN PI Metallized Film with 30 nm Aluminum Disk

Grade: DuPont™ Kapton® HN

Formula: PI

Metallised With: 30 nm Aluminium

Thickness: 0.075mm

Diameter: 50.8mm

Surface Finish: Metallised On One Side

CAS Number: 60842-76-4

UOM Code: 101-997-43

SKU: 1000015466-group

Product Code: IM30-MZ-000141

Material Properties for Polymers

Chemical Resistance

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

Mechanical Properties

| Element | Value |
|---|--------|
| Coefficient of friction | 0.42 |
| Hardness - Rockwell | E52-99 |
| Elongation at break(%) | Aug-70 |
| Tensile modulus(GPa) | 02-Mar |
| Izod impact strength(J m ⁻¹) | 80 |

| Element | Value |
|-------------------------|--------------|
| Tensile strength(MPa) | 70-150 |

Electrical Properties

| Element | Value |
|--|------------------|
| Dielectric constant @ 1MHz | 3.4 |
| Dissipation factor @ 1kHz | 0.0018 |
| Dielectric strength(kV mm ⁻¹) | 22 |
| Surface resistivity(Ohm/sq) | 10 ¹² |
| Volume resistivity(Ohmcm) | 10 ¹² |

Physical Properties

| Element | Value |
|---------------------------------------|--------------|
| Flammability | V0 |
| Radiation resistance | Good |
| Refractive index | 1.66 |
| Resistance to Ultra-violet | Poor |
| Limiting oxygen index(%) | 53 |
| Water absorption - over 24 hours(%) | 0.2-2.9 |
| Density(gcm ⁻³) | 1.42 |

Thermal Properties

| Element | Value |
|---|---------------|
| Heat-deflection temperature - 1.8MPa(C) | 360 |
| Lower working temperature(C) | -270 |
| Upper working temperature(C) | 250-320 |
| Specific heat(J K ⁻¹ kg ⁻¹) | 1090 |
| Thermal conductivity(W m ⁻¹ K ⁻¹) | 0.1-0.35@23°C |
| Coefficient of thermal expansion(x10 ⁻⁶ K ⁻¹) | 30-60 |