

PP Metallized Film with Aluminum Disk

Formula: PP

Metallised With: Aluminium

Thickness: 0.008mm

Diameter: 10mm

Ohms/Square: 3

Surface Finish: Metallised On One Side

CAS Number: 9003-07-0

UOM Code: 132-193-57

SKU: 1000038647-group

Product Code: PP30-MZ-000180

Material Properties for Polymers

Chemical Resistance

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

Mechanical Properties

| Element | Value |
|--|--------------------------------|
| Coefficient of friction | 0.1-0.3 |
| Hardness - Rockwell | R80-100 |
| Elongation at break(%) | 150-300, for biax film >50 |
| Tensile modulus(GPa) | 0.9-1.5, for biax film 2.2-4.2 |
| Izod impact strength(J m ²) | 20-100 |
| Abrasive resistance - ASTM D1044(mg/1000 cycles) | 13-16 |
| Tensile strength(MPa) | 25-40, for biax film 130-300, |

Electrical Properties

| Element | Value |
|--|------------------------------------|
| Dielectric constant @ 1MHz | 2.2-2.6 |
| Dissipation factor @ 1MHz | 0.0003-0.0005 |
| Dielectric strength(kV mm ⁻¹) | 30-40 |
| Surface resistivity(Ohm/sq) | 10 ¹³ |
| Volume resistivity(Ohmcm) | 10 ¹² -10 ¹⁴ |

Physical Properties

| Element | Value |
|-------------------------------------|-------|
| Flammability | HB |
| Radiation resistance | Fair |
| Refractive index | 1.49 |
| Resistance to Ultra-violet | Poor |
| Limiting oxygen index(%) | 18 |
| Water absorption - equilibrium(%) | 0.03 |
| Density(gcm ⁻³) | 0.9 |

Thermal Properties

| Element | Value |
|---|---------------|
| Heat-deflection temperature - 0.45MPa(C) | 100-105 |
| Heat-deflection temperature - 1.8MPa(C) | 60-65 |
| Lower working temperature(C) | 50 |
| Upper working temperature(C) | 90-120 |
| Specific heat(J K ⁻¹ kg ⁻¹) | 1700-1900 |
| Thermal conductivity(W m ⁻¹ K ⁻¹) | 0.1-0.22@23°C |
| Coefficient of thermal expansion(x10 ⁻⁵ K ⁻¹) | 100-180 |