

# MX004 PMP Film

**Grade:** MX004

**Formula:** TPX®

**Thickness:** 0.05mm

**Length 1:** 100mm

**Length 2:** 100mm

**Surface Finish:** Matt/Gloss

**Colour:** Natural

**UOM Code:** 444-469-12

**SKU:** 1000128055-group

**Product Code:** ME31-FM-000150

## 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	2.12
Dissipation factor @ 1kHz	0.0002
Volume resistivity( Ohmcm )	>10 <sup>12</sup>

### Physical Properties

Element	Value
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Flammability	HB
Refractive index	1.463
Resistance to Ultra-violet	Poor
Limiting oxygen index( % )	17
Water absorption - over 24 hours( % )	0.01
Density( gcm <sup>3</sup> )	0.835

## **Mechanical Properties**

<b>Element</b>	<b>Value</b>
Hardness - Rockwell	R85
Elongation at break( % )	15
Tensile modulus( GPa )	1.5
Izod impact strength( J m <sup>2</sup> )	49
Tensile strength( MPa )	25.5

## **Thermal Properties**

<b>Element</b>	<b>Value</b>
Heat-deflection temperature - 0.45MPa( C )	100
Heat-deflection temperature - 1.8MPa( C )	40
Lower working temperature( C )	20
Upper working temperature( C )	75-115
Specific heat( J K <sup>-1</sup> kg <sup>-1</sup> )	2000
Thermal conductivity( W m <sup>-1</sup> K <sup>-1</sup> )	0.17@23°C
Coefficient of thermal expansion( x10 <sup>-5</sup> K <sup>-1</sup> )	117