

# ABS Film

**Formula:** ABS

**Thickness:** 1mm

**Length 1:** 100mm

**Length 2:** 100mm

**Colour:** Black

**CAS Number:** 9003-56-9

**UOM Code:** 235-853-83

**SKU:** 1000001440-group

**Product Code:** AB30-SH-000100

## Material Properties for Polymers

### Chemical Resistance

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

### Mechanical Properties

Element	Value
Coefficient of friction	0.5
Hardness - Rockwell	R100-110
Poisson's ratio	0.35
Elongation at break( % )	45
Tensile modulus( GPa )	2.1-2.4
Izod impact strength( J m <sup>21</sup> )	200-400
Tensile strength( MPa )	41-45

## Electrical Properties

Element	Value
Dielectric constant @ 1MHz	3.2-3.3
Dissipation factor @ 1MHz	0.02
Dielectric strength( kV mm <sup>-1</sup> )	20-25
Volume resistivity( Ohmcm )	>10 <sup>12</sup>

## Physical Properties

Element	Value
Flammability	HB @ 1.5mm
Radiation resistance	Fair
Resistance to Ultra-violet	Poor
Limiting oxygen index( % )	19
Water absorption - over 24 hours( % )	0.3-0.7
Density( gcm <sup>-3</sup> )	1.05

## Thermal Properties

Element	Value
Heat-deflection temperature - 0.45MPa( C )	98
Heat-deflection temperature - 1.8MPa( C )	89
Upper working temperature( C )	70-100
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> )	80