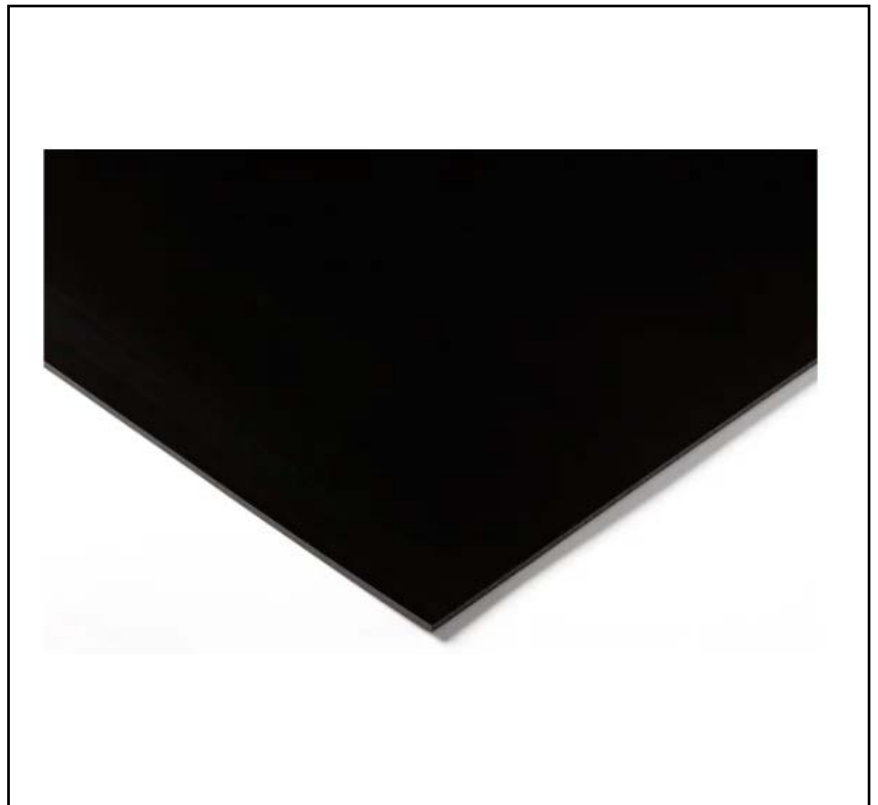


## FEATURES

- Maximum operating temperature of +90 °C
- Flammability rating of UL 94 HB
- Resistant to dilute acids, cleaning agents and numerous solvents
- Very good electrical insulation properties

# Black Plastic Sheet, 1000mm x 500mm x 10mm

RS Stock No.: 408-3841



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

### Product Description

From the trusted brand RS PRO, comes a range of black polyethylene sheets. Manufactured to industry standards and featuring 50 Ball Indentation hardness, these sheets are of high quality and are great value

### General Specifications

<b>Form</b>	Solid
<b>Colour</b>	Black
<b>Material</b>	HDPE
<b>Laminated</b>	Yes
<b>Laminated Material</b>	Acrylic; Epoxy Resin; Fine Weave Cotton; Glass Fibre
<b>Flammability Rating</b>	UL 94 HB
<b>Polymer Type</b>	Copolymer
<b>Finish</b>	Clear
<b>Adhesive Backing</b>	Yes
<b>Applications</b>	Polyethelene has an array of application use such as; Chemical apparatus, Plugs, Seals, Food processing, Insulators, and low load rollers

### Electrical Specifications

<b>Specific Surface Resistance</b>	$10^{14} \Omega$
<b>Specific Volume Resistance</b>	$10^{14} \Omega \cdot \text{cm}$
<b>Dielectric Constant</b>	2.9
<b>Dielectric Loss Factor</b>	0.0017tg
<b>Breakdown Voltage</b>	38kV/mm

### Mechanical Specifications

<b>Length</b>	1000mm
<b>Width</b>	500mm
<b>Thickness</b>	10mm
<b>Density</b>	0.95 to 0.96g/cm <sup>3</sup>
<b>Tensile Strength</b>	25MPa
<b>Hardness</b>	50 Ball Indentation
<b>Water absorption</b>	0.02%
<b>Thermal Conductivity</b>	0.17W/m.K
<b>Elongation</b>	50%
<b>Impact Strength</b>	12kJM <sup>-2</sup>
<b>Modulus Of Elasticity</b>	2800MPa
<b>Flexural Strength</b>	175MPa
<b>Compression Strength</b>	23MPa
<b>Compression Modulus</b>	3400MPa
<b>Ball Indentation Hardness</b>	253MPa
<b>Thermal Expansion</b>	5x10 <sup>-5</sup> k <sup>-1</sup>
<b>Specific Heat</b>	1.1J/(g.K)
<b>Specific Gravity</b>	1.38
<b>Flexural Modulus</b>	2600MPa
<b>Friction Coefficient</b>	0.54
<b>Poisson Ratio</b>	0.38kJM <sup>-2</sup>

### Operation Environment Specifications

<b>Maximum Operating Temperature</b>	90°C
<b>Melting Point</b>	255°C
<b>Glass Transition Temperature</b>	150°C
<b>Vicat Softening Point</b>	65°C

### Approvals

<b>Compliance/Certifications</b>	CE / UR / cUR
<b>Standards Met</b>	DIN 50014