

## FEATURES

- Strong, tough and rigid
- Improved UV protection due to the black colouring
- Hot water resistant
- Good chemical resistance
- Resistant to dilute acids, cleaning agents and many solvents
- Good sliding and wear properties
- Difficult to bond
- Easily welded
- Very good electrical insulation properties
- Easy to machine and polish

## Black Plastic Sheet, 500mm x 300mm x 30mm

RS Stock No.: 282-0244



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 RS Pro a range of high-quality Acetal solid plastic sheets black in colour and available in a range of sizes and thicknesses

### General Specifications

|                            |   |
|----------------------------|---|
| <b>Form</b>                | Solid   |
| <b>Colour</b>              | Black   |
| <b>Material</b>            | Acetal  |
| <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>        | Components that are manufactured from this plastic include the following: Friction bearings, Gears, Tool Supports, Housing parts, Rollers, Friction Strips, Plugs, Insulators, Agitators and kneading elements, Seals |

### 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

|                           |                                    |
|---------------------------|------------------------------------|
| Length                    | 500mm                              |
| Width                     | 300mm                              |
| Thickness                 | 30mm                               |
| Density                   | 1.41g/cm <sup>3</sup>              |
| Tensile Strength          | 55MPa                              |
| Hardness                  | M 86 Rockwell                      |
| Water absorption          | 0.5%                               |
| Thermal Conductivity      | 0.17W/m.K                          |
| Elongation                | 30%                                |
| Impact Strength           | 12kJM <sup>-2</sup>                |
| Modulus Of Elasticity     | 2800MPa                            |
| Flexural Strength         | 175MPa                             |
| Compression Strength      | 23MPa                              |
| Compression Modulus       | 3400MPa                            |
| Ball Indentation Hardness | 253MPa                             |
| Thermal Expansion         | 5x10 <sup>-5</sup> k <sup>-1</sup> |
| Specific Heat             | 1.1J/(g.K)                         |
| Specific Gravity          | 1.38                               |
| Flexural Modulus          | 2600MPa                            |
| Friction Coefficient      | 0.54                               |
| Poisson Ratio             | 0.38kJM <sup>-2</sup>              |

### Operation Environment Specifications

|                               |       |
|-------------------------------|-------|
| Maximum Operating Temperature | 100°C |
| Melting Point                 | 255°C |
| Glass Transition Temperature  | 150°C |
| Vicat Softening Point         | 65°C  |

### Approvals

|                           |               |
|---------------------------|---------------|
| Compliance/Certifications | CE / UR / cUR |
| Standards Met             | DIN 50014     |