

Excel Plastics

Material Properties for Excel Colour PVC foam sheet.

The values are a list of typical results by testing large numbers of specimens under specified conditions.

Additional processing can influence the properties so we recommend caution must be adhered to when applied to the finished products.

PHYSICAL CHARACTERISTICS

| Characteristic | Excel foam PVC sheet values | |
|----------------------------|-------------------------------|--|
| Base Polymer | Polyvinyl chloride PVC | |
| Form | Semi – Finished sheet product | |
| Thickness | 3mm – 30mm | |
| Smell | Odourless | |
| Water absorption | 0.10% | |
| Water Solubility | Insoluble | |
| Tensile strength at yield | ≥ 13 MPa | |
| Modulus of Elasticity | 0.85 – 0.90MPa | |
| Flexural Strength | > 32MPa | |
| Elongation at break | 13 % | |
| Impact Resistance (CHARPY) | 15Kj/m2 | |
| Impact Resistance (IZOD) | 9MPa | |
| Shore Hardness | 30-40 | |

THERMAL PROPERTIES

| Property | Excel foam PVC sheet values |
|---------------------------------|-----------------------------|
| Vicat Softening temperature | 73°C |
| Heat Deflection Temperature | |
| @1.8MPa | 57°C |
| Coefficient of Linear expansion | 4.47 X 10 ⁻⁵ |
| Thermal Expansion | 0.06W/mK |
| Service Temperature | -20°C to +60°C |

ELECTRICAL PROPERTIES

| Property | Excel foam PVC sheet values |
|-----------------------------|-----------------------------|
| Surface Resistivity (ohms) | $10^{14}\Omega$ |
| Volume Resistivity | 10 ¹⁵ Ωcm |
| Dielectric Constant at 1MHZ | 2.4 |
| dielectric strength | ≥ 90kV |



EXCEL FOAM SHEET AVAILABILITY

SHEET SIZES &TOLERANCES

| Standard sheet sizes | 1mm – 10mm | 12mm – 26mm | 30mm |
|----------------------|----------------|----------------|----------------|
| | 2440 X 1220 mm | 2440 X 1220 mm | 2440 – 1220 mm |
| | 3050 X 1220 mm | 3050 X 1220 mm | 3050 X 1220 mm |
| | 3050 X 1560 mm | 3050 X 1560 mm | |
| | 3050 X 2050 mm | | |

Other sizes available to order. Subject to minimum quantities.

TOLERANCES

| Length | -0 +10mm |
|-------------|----------|
| Width | -0 +3mm |
| Thicknesses | + /- 5% |

Excel Plastics has no control over the use of the material by different end users. It does not guarantee the same results each time. The end user should make their own tests to determine the suitability of the product for the application. Excel Plastics cannot be held responsible for any incorrect handling of the product.