



## Excel Plastics

### Material Properties for Excel 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	mm	1-10	10-30

#### Physical

Density	g/ cc	0.55 – 0.65	0.50 – 0.55
Hardness	Shore-D	≥ 35	≥ 40
Smell		Odourless	Odourless
Water absorption	%	0.10	0.10
Water Solubility		Insoluble	Insoluble

#### Mechanical

Tensile strength at yield	MPa	>13	>15
Elongation at break	%	≥ 15	≥ 13
Modulus of Elasticity	MPa	900 - 1500	900 - 1500
Flexural Strength	MPa	≥ 32	≥ 32
Impact Resistance (CHARPY)	15kj/ m <sup>2</sup>	≥ 15	≥ 15
Impact Resistance (IZOD)	15kj/ m <sup>2</sup>	≥ 9	≥ 9

#### THERMAL

Vicat Softening temperature	°C	> 72	> 72
Heat Deflection Temperature @ 1.8 MPa	°C	≥ 58	≥ 57
Coefficient of linear expansion	Mm/m°C	0.068	0.068
Thermal conductivity	W/mK	0.06	0.06
Service Temperature	°C	-20 to 60	-20 to 60

#### ELECTRICAL

Surface Resistivity	Ω	10 <sup>14</sup>	10 <sup>14</sup>
Volume Resistivity	Ωcm	10 <sup>15</sup>	10 <sup>15</sup>
Dielectric Constant at 1MHZ		2.4	2.4
Dielectric strength	kV	≥ 90	≥ 90



**EXCEL FOAM SHEET AVAILABILITY**  
**SHEET SIZES**

Standard sheet sizes	1 -10 mm thickness	12–25 mm thickness	30 mm thickness
	2440 x 1220 mm	2440 x 1220 mm	2440 x 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 are available to order**  
**Subject to minimum quantities.**

**TOLERANCES**

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