Quick guide - comparison of materials

Material Comparison

Material	Fibreglass	Polycarbonate	Safety Glass	PVC
Transparency	Medium	Excellent	Excellent	Excellent
Transparency over period	Good	Medium	Excellent	Poor
UV Resistance	Good	Medium	Excellent	Poor
Yellowing	Good	MEdium	Excellent	Poor
Temperature resistance	Excellent	Good	Excellent	Medium
Thermal insulation	Good	Good	Good	Good
Sound insulation	Good	Good	Good	Good
Impact strength	Excellent	Excellent	Poor	Medium
Tear strength	Excellent	Poor	Poor	Medium
Rigidity	Excellent	Good	Excellent	Good
Fire rating	Class 1,2,3,4	Class 0,1	Class 0,1	Class 1
Chemical resistance	Excellent	Good	Excellent	Good
Cold curving	Good	Excellent	No	Good
Formability	No	Excellent	No	Excellent
Life expectancy	Excellent	Good	Excellent	Low

Materials Expansion Comparison. 0°C to 40° temperature variation. Sheet length 12 metres.

Material	Fibreglass	Polycarbonate	Safety Glass	PVC
Thermal expansion	14.4mm	32.4mm	5.8mm	11.5mm
Thermal co-efficient	3.0 x 10-5cm/cm˚C	6.75 x 10-5cm/cm˚C	1.2 x 10-5cm/cm˚C	2.4 x 10-5cm/cm˚C