

# Typical Physical Properties

## Palight®

Property	Test Method	Units -SI	Value
<b>Physical</b>			
Relative Density *	In-house	g/cm <sup>3</sup>	0.65-0.70
Water Absorption	ASTM D-570	%	0.5-0.8
<b>Mechanical</b>			
Tensile Strength at yield	ASTM D-638	MPa	16
Elongation at break	ASTM D-638	%	30
Flexural Strength at yield	ASTM D-790	MPa	28
Flexural Modulus *	ASTM D-790	MPa	900
Charpy Impact Strength	ASTM D-256	J/m	29
Shore D Hardness		value	N/A
<b>Thermal</b>			
Service Temperature *	In-house	°C	-10 to 55
Heat Distortion Temperature *	In-house	°C	63
Vicat Softening Temperature	ASTM D-648	°C	75
Coefficient of Thermal Expansion *	ASTM D-1525	cm/cm°C	6.70
<b>Electrical</b>			
Dielectric Strength	ASTM D-257	Ω	5x101
Surface Resistivity	ASTM D-257	Ω-cm	2x101

## Foamalite®

Property	Test Method	Units -SI	Value
<b>Physical</b>			
Relative Density *	In-house	g/cm <sup>3</sup>	0.65-0.70
Water Absorption	ISO62: Method 1	%	0-19
<b>Mechanical</b>			
Tensile Strength at yield	ISO R527	MPa	19-37
Elongation at break	ISO R527	%	17.89
Flexural Strength at yield		MPa	N/A
Flexural Modulus *	ISO75: Method A	MPa	903
Charpy Impact Strength	ISO 179	J/m	1.43
Shore D Hardness	ISO 868	value	63
<b>Thermal</b>			
Service Temperature *	In-house	°C	-10 to 55
Heat Distortion Temperature *	ISO75: Method A	°C	57.75
	ISO75 Method B		68.40
Vicat Softening Temperature		°C	N/A
Coefficient of Thermal Expansion *	In-house	cm/cm°C	4.98
<b>Electrical</b>			
Dielectric Strength		Ω	N/A
Surface Resistivity		Ω-cm	N/A

Notes: the above tables cannot be directly compared due to the different test methods utilised, unless where indicated \*. Relative density is stated for 3mm standard products.

## Flammability:

FOAMED PVC	
Standard	Classification
BS 476 Part 7	Class 1
UL 94	V-0
NSP 92501,5	M-1, M-2
DIN 4102	B-2

Note: Foamed PVC has a self-extinguishing property. If ignited in air, it will die by itself. Subsequently, foamed PVC complies with the most demanding fire resistance standards as indicated by these representative results.