Rigid PVC

Property	Test Method	Conditions	Units	Value	
Physical				RIGID PVC	PALCLEAR
Relative Density	ASTM D-0505		g/cm^3	1.4	1.4
Water Absorption	ASTM D-570	24 hr @ 23˚C	%	0.03	0.03
Mechanical					
Tensile Strength at yield	ASTM D-638	10^{mm}/min	MPa	71	71
Tensile Strength at break	ASTM D-638	10^{mm}/min	MPa	35	35
Elongation at yield	ASTM D-638	10^{mm}/min	%	3	3
Elongation at break	ASTM D-638	10^{mm}/min	%	95	95
Tensile Modulus of Elasticity	ASTM D-638	1^{mm}/min	MPa	3100	3100
Flexural Modulus	ASTM D-790	1.3^{mm}/min	MPa	3200	3200
Flexural Strength at yield	ASTM D-790	1.3^{mm}/min	MPa	103	103
Izod Impact Strength	ASTM D-256	notched	J/m	35	35
Charpy Impact Strength	ISO 6603	notched	J/m	95	95
Impact Falling Weight	ISO 6603	3mm sheet	J	95	95
Rockwell Hardness	ASTM D-785		R Scale	115	115
Thermal					
Service Temperature			°C	0 to 50°C	0 to 50°C
Heat Distortion Temperature	ASTM D-648	Load: 1.82MP	°C	62-65	62-65
Vicat Softening Temperature	ASTM D-1525	Load: 1kg	˚C	86	86
Coefficient of Thermal Expansion	ASTM D-696		$cm/cm°C$	6.7×10^{-5}	6.7×10^{-5}
Thermal Conductivity	C-177		$W/m˚K$	0.15	0.15
Specific Heat Capacity	C-351		kJ/kg˚K	1.26	
Optical					
Light Transmission	ASTM D-1003		%		87
Refractive Index	ASTM D-542				
Yellowness Index	ASTM D-1925				<4
Haze	ASTM D-1003		%		
Electrical					
Dielectric Strength	ASTM D-149	500V/s	kV/mm	50	50
Surface Resistivity	ASTM D-257	Keithley	Ω	$3.7x10^4$	$3.7x10^4$

Other physical properties and values available on request.

Palclear Flammability

Standard	Classification
EN13501	B, s2, d0
BS 476 Part 7	Class 1
UL 94	V0
NSP 92501,5	M1, M2
DIN 4102	B1
CSE RF 3/77	Class 1
IEC 695.2.1	Self Extinguish

Palopaque Flammability

Standard	Classification
EN13501	B, s3, d0
DIN 4102	B1
BS476 Part 7	Class 0
ASTM E-84	Class A

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