

# Polyvinyl Chloride and Acrylic Alloy Sheet (PVC/PMMA)

## IAPD THERMOPLASTICS RECTANGLE

### AMORPHOUS COMMODITY THERMOPLASTICS

#### TYPICAL PROPERTIES OF PVC/ACRYLIC ALLOY EXTRUDED SHEET

ASTM Test	Property	
PHYSICAL		
D792	<b>Specific gravity</b>	1.33-1.37
MECHANICAL		
D638	<b>Tensile strength</b> ( $\times 10^3$ psi)	6.1
D638	<b>Elongation at break</b> (%)	160
D790	<b>Max flexural strength</b> ( $\times 10^3$ )	9.3
D790	<b>Modulus of elasticity</b> ( $\times 10^3$ psi)	335
D785	<b>Hardness, Rockwell R</b>	94
D256	<b>Notched izod impact resistance</b> (73°F ft-lb/in)	18
THERMAL		
D648	<b>Heat deflection temp.</b> (Annealed, 0°F) At 264 psi	173
UL STD 94	<b>Flammability rating</b>	V-O-5V
FAR 25.853(a)	<b>FAA vertical burn, 60 s</b>	pass
FAR 25.853(a) and (b)	<b>FAA vertical burn, 12 s</b>	pass
E162	<b>Radiant panel flame spread index</b> (ls)	<35
MVSS 302	<b>Motor vehical safety standard 302</b>	pass
ELECTRICAL		
D149	<b>Dielectric strength</b> (V/mil)	>430
D150	<b>Dielectric constant</b> At 1 kHz	3.70
D150	<b>Dissipation factor</b> At 1 kHz	0.074
D275	<b>Surface resistivity</b> ( $\times 10^{14}$ )	2.26
D495	<b>Arc resistance</b> (s)	80

#### TYPICAL PROPERTIES OF PVC/ACRYLIC ALLOY EXTRUDED SHEET

ISO Test	Property	
PHYSICAL		
ISO1183	<b>Specific gravity</b>	1.33-1.37
MECHANICAL		
ISO527	<b>Tensile strength</b> (MPa)	42.06
ISO62	<b>Elongation at break</b> (%)	160
ISO178	<b>Max flexural strength</b> (MPa)	64.12
ISO178	<b>Modulus of elasticity</b> ( $10^3$ MPa)	2.31
ISO2039	<b>Hardness, Rockwell R</b>	94
ISO180	<b>Notched izod impact strength</b> (21°C J/m)	961
THERMAL		
ISO75	<b>Deflection temp.</b> (Annealed, -18°C) At 1.80 MPa	78
UL 94	<b>Flammability rating</b>	V-O-5V
FAR 25.853(a)	<b>FAA vertical burn, 60 s</b>	pass
FAR 25.853(a) and (b)	<b>FAA vertical burn, 12 s</b>	pass
E162	<b>Radiant panel flame spread index</b> (ls)	<35
MVSS 302	<b>Motor vehical safety standard 302</b>	pass
ELECTRICAL		
ISO243	<b>Dielectric strength</b> (kV/mm)	>16.93
IEC250	<b>Dielectric constant</b> At 1 kHz	3.70
IEC250	<b>Dissipation factor</b> At 1 kHz	0.074
IEC93	<b>Surface resistivity</b> ( $\times 10^{14}$ )	2.26
D495	<b>Arc resistance</b> (s)	80