

# Mitsubishi Chemical Advanced Materials PVC Polyvinyl Chloride, Type I, Grade 1 (ASTM Product Data Sheet)

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<b>Categories:</b>	<a href="#">Polymer</a> ; <a href="#">Thermoplastic</a> ; <a href="#">Vinyl (PVC)</a> ; <a href="#">PVC, Molded</a>		
<b>Material Notes:</b>	Quadrant Engineering Plastic Products is now Mitsubishi Chemical Advanced Materials.		
Physical Properties	Metric	English	Comments
Specific Gravity	<a href="#">1.40</a> g/cc	<a href="#">1.40</a> g/cc	ASTM D792
Water Absorption	<= 0.040 %	<= 0.040 %	Immersion, 24hr; ASTM D570(2)
Water Absorption at Saturation	<= 0.040 %	<= 0.040 %	Immersion; ASTM D570(2)
Mechanical Properties	Metric	English	Comments
Hardness, Shore D	89	89	ASTM D2240
Tensile Strength	<a href="#">57.6</a> MPa	<a href="#">8350</a> psi	ASTM D638
Tensile Strength at 65°C (150°F)	<a href="#">3.45</a> MPa	<a href="#">500</a> psi	ASTM D638
Elongation at Break	5.0 %	5.0 %	ASTM D638
Tensile Modulus	<a href="#">3.21</a> GPa	<a href="#">465</a> ksi	ASTM D638

Flexural Strength	<a href="#">57.6</a> MPa	<a href="#">8350</a> psi	ASTM D790
Flexural Modulus	<a href="#">2.74</a> GPa	<a href="#">398</a> ksi	ASTM D790
Compressive Strength	<a href="#">82.7</a> MPa	<a href="#">12000</a> psi	10% Def.; ASTM D695
Compressive Modulus	<a href="#">2.41</a> GPa	<a href="#">350</a> ksi	ASTM D695
Izod Impact, Notched	<a href="#">0.214</a> J/cm	<a href="#">0.400</a> ft-lb/in	ASTM D256 Type A
<b>Electrical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Surface Resistivity per Square	>= <a href="#">1.00e+12</a> ohm	>= <a href="#">1.00e+12</a> ohm	ASTM D257
<b>Thermal Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Maximum Service Temperature, Air	<a href="#">60.0</a> °C	<a href="#">140</a> °F	Long Term
Deflection Temperature at 1.8 MPa (264 psi)	<a href="#">46.7</a> °C	<a href="#">116</a> °F	ASTM D648
Flammability, UL94	V-0 @Thickness 3.17 mm	V-0 @Thickness 0.125 in	Estimated Rating
<b>Compliance Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
3A-Dairy	No	No	
Canada AG	No	No	
FDA	No	No	
NSF	No	No	
USDA	No	No	
USP Class VI	No	No	

<b>Chemical Resistance Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Acids, Strong (pH 1-3)	Limited	Limited	
Acids, Weak	Acceptable	Acceptable	
Alcohols	Acceptable	Acceptable	
Alkalies, Strong (pH 11-14)	Acceptable	Acceptable	
Alkalies, Weak	Acceptable	Acceptable	
Chlorinated Solvents	Limited	Limited	
Conductive / Static Dissipative	Yes	Yes	
Continuous Sunlight	Limited	Limited	
Hot Water / Steam	Limited	Limited	
Hydrocarbons - Aliphatic	Limited	Limited	
Hydrocarbons - Aromatic	Limited	Limited	
Inorganic Salt Solutions	Acceptable	Acceptable	
Ketones, Esters	Unacceptable	Unacceptable	
<b>Miscellaneous Properties</b>			
<b>Miscellaneous Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Data Sheet Region	Americas	Americas	
Targeted Usage	Structural Uses	Structural Uses	
<b>Descriptive Properties</b>			
Machinability	6		1-10, 1=Easier to Machine

Some of the values displayed above may have been converted from

their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's disclaimer and terms of use regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.