Ardel®
(Polyarylate)

Stock shapes extruded from Ardel® resin are specifically formulated to endure the damaging effects of UV light. When exposed to UV light, this unique material undergoes a molecular rearrangement resulting in the formation of a protective layer that essentially serves as a UV stabilizer. This inherent UV stability combined with superior retention of optical and mechanical properties makes polyarylate an ideal choice for any application where weathering effects could pose a problem. The following physical property information is based on typical values of the base Ardel® polyarylate resin (PAR).

Applications Include:
- Semiconductor components
- Solar energy components
- Appliance parts
- Snap lock connectors

Advantages of Polyarylate:
- Exceptional UV stability
- Good electrical properties
- Excellent flexural recovery
- Transparency
- Toughness

Property	ASTM Test Method	Units	Ardel®
Physical			
Specific Gravity	D792		1.21
Water Absorption @24 hours	D570	%	0.26
Mechanical			
Tensile Strength @yield	D638	psi	10,000
Tensile Modulus	D638	psi	300,000
Tensile Elongation @yield	D638	%	8.4
Tensile Elongation @break	D638	%	50.0
Flexural Strength @yield	D790	psi	11,000
Flexural Modulus	D790	psi	310,000
Compressive Strength @yield	D695	psi	12,180
Izod Impact Strength, Notched @73°F	D256	ft-lb/in	3.8
Hardness, Rockwell	D7852, D2240		R125
Thermal			
Heat Deflection Temperature @ 66 psi @ 264 psi	 D648 D648	 °F °F	 356 345
Coefficient of Thermal Expansion	D696	in/in/°F	6.1×10^{-5}
Flammability Rating, @ .125”	UL94		V-0
Thermal Conductivity	C177	(BTU-in)/(hr•ft^2•°F)	1.48
Limiting Oxygen Index	D2863	%	36.0
Electrical			
Dielectric Strength	D149	V/mil	400
Dielectric Constant @1kHz	D150		3.32
Dissipation Factor @1kHz	D150		0.0040
Volume Resistivity	D257	ohm•cm	2×10^{14}
Optical			
Haze	D1746	%	2.3
Transparency	D1746	%	87

Polyarylate Outgassing:

Sample	Temp. °C	% TML	% CVCM
1" Thick Polyarylate	40	0.05	0.00
1" Thick Polyarylate	70	0.06	0.00
1" Thick Polyarylate	85	0.07	0.00

Note: Test conducted in accordance with ASTM method F1227—Analysis of Total Mass Loss (TML) and Collected Volatile Condensable Materials (CVCM).

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.