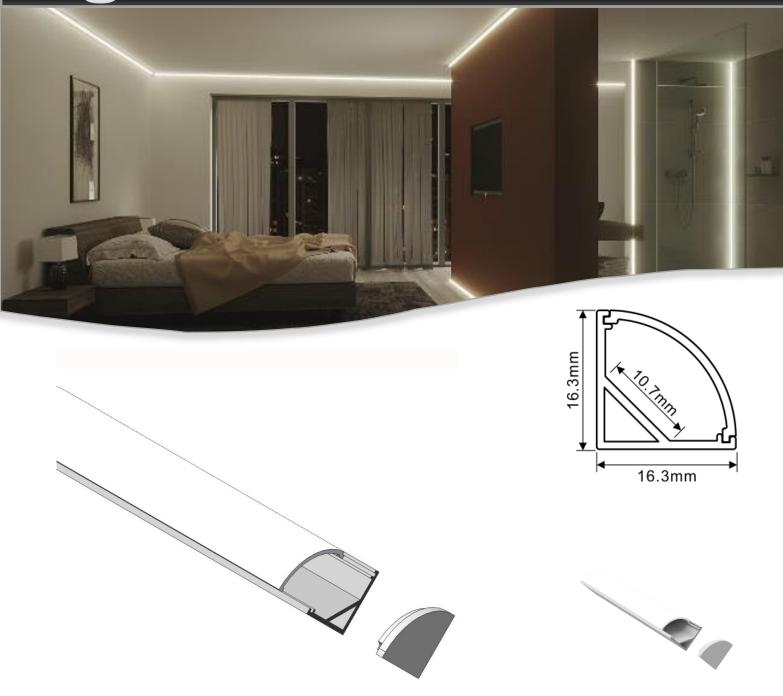


XD 1616



- 6063 anodised aluminium LED profile 2500mm
- Opal PC diffuser with 91.09% light emittance
- Sold in kits of 20 with 20 x open end cap, 20 x closed end cap, 60 x stainless steel clip
- Also sold as single pieces with 3 x clip and 2 x end cap pair
- Available in a large range of LED strip options





Aluminum 6063-T5

Compo	nent Wt. %	Component	Wt. %	Compo	nent Wt. %
Al	Max 97.5	Mg	0.45 - 0.9	Si	0.2 - 0.6
Cr	Max 0.1	Mn	Max 0.1	Ti	Max 0.1
Cu	Max 0.1	Other, each	Max 0.05	Zn	Max 0.1
Fe	Max 0.35	Other, total	Max 0.15		

Physical Properties	Metric	English	Comments
Density Mechanical Properties	2.7 g/cc	0.0975 lb/in ³	AA; Typical
Hardness, Brinell	60	60	AA; Typical; 500 g load; 10 mm ball
Ultimate Tensile Strength	186 MPa	27000 psi	AA; Typical
Tensile Yield Strength	145 MPa	21000 psi	AA; Typical
Elongation at Break	12 %	12 %	AA; Typical; 1/16 in. (1.6 mm) Thickness
Modulus of Elasticity	68.9 GPa	10000 ksi	AA; Typical; Average of tension and compression. Compression modulus is about 2% greater than tensile modulus.
Poisson's Ratio	0.33	0.33	
Fatigue Strength	68.9 MPa	10000 psi	AA; 500,000,000 cycles completely reversed stress; RR Moore machine/specimen
Shear Modulus	25.8 GPa	3740 ksi	
Shear Strength	117 MPa	17000 psi	AA; Typical
Electrical Properties			
Electrical Resistivity	3.16e-006 ohm-cm	3.49e-006 ohm-cm	AA; Typical at 68°F
Thermal Properties			
CTE, linear 68°F	23.4 µm/m-°C	13 µin/in-°F	AA; Typical; Average over 68-212°F range.
CTE, linear 250°C	25.6 µm/m-°C	14.2 µin/in-°F	Average over the range 20-300°C
Heat Capacity	0.9 J/g-°C	0.215 BTU/lb-°F	
Thermal Conductivity	209 W/m-K	1450 BTU-in/hr-ft²-°F	AA; Typical at 77°F
Melting Point	616 - 654 °C	1140 - 1210 °F	AA; Typical range based on typical composition for wrought products 1/4 inch thickness or greater
Solidus	616 °C	1140 °F	AA; Typical
Liquidus	654 °C	1210 °F	AA; Typical
Processing Properties			
Annealing Temperature	413 °C	775 °F	hold at temperature for 2 to 3 hr; cool at 50 °F per hour from 775 to 500 °F
Solution Temperature	<u>521 °C</u>	970 °F	
Aging Temperature	<u>182 °C</u>	360 °F	hold at temperature for 1 hr





XD 1616

Polycarbonate (PC), pellets

- (f1) Suitable for outdoor use with respect to exposure to Ultraviolet Light, Water Exposure and Immersion in accordance with UL 746C.
- (f2) Subjected to one or more of the following tests: Ultraviolet Light, Water Exposure or Immersion in accordance with UL 746C, where the acceptability for outdoor use is to be determined by UL.
- (z) Material designation and color code may be followed by up to three letters and/or three numbers (does not include grades which are separately recognized with above material designation and suffix)
- + Material designations may be followed by a six digit numerical code denoting color.

Flame Rating			
1.50 mm, ÅLL HB UL 94 6.00 mm, ALL HB UL 94 0.750 to 1.40 mm, ALL V-2 UE 94 0.750 to 1.40 mm, ALL HB40 IEC 60095-11-10, -20 3.00 mm, ALL HB40 IEC 60095-11-10, -20 1.50 mm, ALL HB75 IEC 60095-11-10, -20 1.50 mm, ALL HB75 IEC 60095-11-10, -20 1ectrical Value Test Method Hel-wirel (spillon (HWI)) UL 746 1.50 mm PLC 3 1.50 mm 3.00 mm PLC 0 UL 746 1.50 mm PLC 0 UL 746 1.60 mm PLC 0 UL 746 1.60 mm PLC 0 ASTM D194 1.50 mm 125 °C UL 746 1.50 mm <td>lammability</td> <td>Value</td> <td>Test Method</td>	lammability	Value	Test Method
3.00 mm, ALL	-		
6.00 mm, ALL 0.750 to 1.40 mm, ALL 0.750 mm 0.750			
0.750 to 1.40 mm, ALL V-2 IEC 60695-11-10, -20 3.00 mm, ALL HB40 IEC 60695-11-10, -20 6.00 mm, ALL HB40 IEC 60695-11-10, -20 1.50 mm, ALL HB75 IEC 60695-11-10, -20 lectrical Value Test Method Hot-wire Ignition (HWI) UL 746 1.50 mm PLC 2 6.00 mm PLC 0 1.50 mm PLC 0 6.00 mm PLC 0 1.50 mm PLC 0 3.00 mm PLC 0 6.00 mm PLC 0 Comparative Tracking Index (CTI) PLC 0 UL 746 UL 746 Pleiebctric Strength 23 kV/mm ASTM D149 High Voltage Arc Tracking Rate (HVTR) PLC 0 UL 746 Volume Resistivity 1.0E+16 ohms-cm ASTM D257 EC 60093 Test Method Test Method RTI Elec UL 746 UL 746 1.50 mm 125 °C UL 746 1.50 mm 15 °C UL 746 1.50 mm 115 °C			
10.790 1.40 mm, ALL	6.00 mm, ALL	HB	
6.00 mm, ALL HB40 IEC 60695-11-10, -20 1.50 mm, ALL Value Test Method Hot-wire Ignition (HWI) UL 746 1.50 mm PLC 3 3.00 mm PLC 2 6.00 mm PLC 0 High Amp Are Ignition (HAI) UL 746 1.50 mm PLC 0 3.00 mm PLC 0 3.00 mm PLC 0 5.00 mm PLC 0 Comparative Tracking Index (CTI) PLC 2 UL 746 Dielectric Strength 23 kW/mm ASTM D149 High Voltage Arc Tracking Rate (HVTR) PLC 0 UL 746 Volume Resistivity 1.0E+16 ohms-cm ASTM D257 IEC 60093 Arc Resistance PLC 6 ASTM D495 Nermal Value Test Method RTI Elec UL 746 UL 746 1.50 mm 125 °C UL 746 1.50 mm 115 °C UL 746 1.50 mm 115 °C UL 746 1.50 mm 115 °C UL 746 1.50 mm 11	0.750 to 1.40 mm, ALL	V-2	IEC 60695-11-10, -20
1.50 mm, ALL HB75 IEC 60695-11-10, -20 IEC facial Value Test Method Hb10-wire ignition (HWI) UL 746 UL	3.00 mm, ALL	HB40	
Internal Value Test Method UL 746	6.00 mm, ALL	HB40	IEC 60695-11-10, -20
Hot-wire Ignition (HWII)	1.50 mm, ALL	HB75	IEC 60695-11-10, -20
1.50 mm	lectrical	Value	
3.00 mm	Hot-wire Ignition (HWI)		UL 746
FLC 0	1.50 mm	PLC 3	
High Amp Arc Ignition (HAI)	3.00 mm	PLC 2	
1.50 mm	6.00 mm	PLC 0	
3.00 mm	High Amp Arc Ignition (HAI)		UL 746
6.00 mm PLC 0 Comparative Tracking Index (CTI) PLC 2 UL 746 Dielectric Strength 23 kV/mm ASTM D149 IEC 600243-1 High Voltage Arc Tracking Rate (HVTR) PLC 0 UL 746 Volume Resistivity 1.0E+16 ohms-cm ASTM D257 IEC 60093 Arc Resistance PLC 6 ASTM D495 hermal Value Test Method 1.50 mm 125 °C 4 3.00 mm 125 °C 4 6.00 mm 115 °C 4 1.50 mm 115 °C 4 3.00 mm 115 °C 4 1.50 mm 125 °C 4	1.50 mm	PLC 0	
Display	3.00 mm	PLC 0	
Dielectric Strength 23 kV/mm ASTM D149 IEC 60243-1 High Voltage Arc Tracking Rate (HVTR) PLC 0 UL 746 Volume Resistivity 1.0E+16 ohms·cm ASTM D257 IEC 60093 Arc Resistance PLC 6 ASTM D495 Arc Resistance PLC 6 ASTM D495 Arc Resistance PLC 6 UL 746 Test Method US 70 T	6.00 mm	PLC 0	
Delectric Strength	Comparative Tracking Index (CTI)	PLC 2	UL 746
Volume Resistivity 1.0E+16 ohms·cm ASTM D257 IEC 60093 Arc Resistance PLC 6 ASTM D495 hermal Value Test Method RTI Elec UL 746 UL 746 1.50 mm 125 °C UL 746 3.00 mm 125 °C UL 746 6.00 mm 115 °C UL 746 1.50 mm 115 °C UL 746 3.00 mm 115 °C UL 746 6.00 mm 115 °C UL 746 1.50 mm 125 °C C 3.00 mm 125 °C C 6.00 mm 125 °C C 8 column 125 °C C 9 column 125 °C C 10 column 125 °C C 10 column 125 °C C 10 column 125 °C C <t< td=""><td>Dielectric Strength</td><td>23 kV/mm</td><td></td></t<>	Dielectric Strength	23 kV/mm	
Total Test Method Test M	High Voltage Arc Tracking Rate (HVTR)	PLC 0	UL 746
hermal Value Test Method RTI Elec UL 746 1.50 mm 125 °C 3.00 mm 125 °C 6.00 mm 125 °C RTI Imp UL 746 1.50 mm 115 °C 3.00 mm 115 °C 6.00 mm 115 °C Thermal Value Test Method RTI Str UL 746 1.50 mm 125 °C 3.00 mm 125 °C 6.00 mm 125 °C Physical Value Test Method Dimensional Stability 0.0 % ASTM D1042 ISO 2796	Volume Resistivity	1.0E+16 ohms-cm	
RTI Elec UL 746 1.50 mm 125 °C 3.00 mm 125 °C 6.00 mm 125 °C RTI Imp UL 746 1.50 mm 115 °C 3.00 mm 115 °C 6.00 mm 115 °C Thermal Value Test Method RTI Str UL 746 1.50 mm 125 °C 3.00 mm 125 °C 6.00 mm 125 °C Physical Value Test Method Dimensional Stability 0.0 % ASTM D1042 ISO 2796	Arc Resistance	PLC 6	ASTM D495
1.50 mm 125 °C 3.00 mm 125 °C 6.00 mm 125 °C RTI Imp UL 746 1.50 mm 115 °C 3.00 mm 115 °C 6.00 mm 115 °C Test Method RTI Str UL 746 1.50 mm 125 °C 3.00 mm 125 °C 6.00 mm 125 °C Physical Value Test Method ASTM D1042 ISO 2796	hermal	Value	Test Method
3.00 mm	RTI Elec		UL 746
6.00 mm 125 °C RTI Imp UL 746 1.50 mm 115 °C 3.00 mm 115 °C 6.00 mm 115 °C Thermal Value Test Method RTI Str UL 746 1.50 mm 125 °C 3.00 mm 125 °C 6.00 mm 125 °C Physical Value Test Method Dimensional Stability 0.0 % ASTM D1042 ISO 2796	1.50 mm	125 °C	
RTI Imp	3.00 mm	125 °C	
1.50 mm 115 °C 3.00 mm 115 °C 6.00 mm 115 °C Chermal Value Test Method RTI Str UL 746 1.50 mm 125 °C 3.00 mm 125 °C 6.00 mm 125 °C Physical Value Test Method Dimensional Stability 0.0 % ASTM D1042 ISO 2796	6.00 mm	125 °C	
3.00 mm	RTI Imp		UL 746
6.00 mm 115 °C Thermal Value Test Method RTI Str UL 746 1.50 mm 125 °C 3.00 mm 125 °C 6.00 mm 125 °C Physical Value Test Method Dimensional Stability 0.0 % ASTM D1042 ISO 2796	1.50 mm	115 °C	
Thermal Value Test Method RTI Str UL 746 1.50 mm 125 °C 3.00 mm 125 °C 6.00 mm 125 °C Physical Value Test Method Dimensional Stability 0.0 % ASTM D1042 ISO 2796	3.00 mm	115 °C	
RTI Str UL 746 1.50 mm 125 °C 3.00 mm 125 °C 6.00 mm 125 °C Physical Value Test Method Dimensional Stability 0.0 % ASTM D1042 ISO 2796	6.00 mm	115 °C	
1.50 mm 125 °C 3.00 mm 125 °C 6.00 mm 125 °C Physical Value Test Method Dimensional Stability 0.0 % ASTM D1042 ISO 2796	Thermal	Value	Test Method
3.00 mm 125 °C 6.00 mm 125 °C Physical Value Test Method Dimensional Stability 0.0 % ASTM D1042 ISO 2796	RTI Str		UL 746
6.00 mm 125 °C Physical Value Test Method Dimensional Stability 0.0 % ASTM D1042 ISO 2796	1.50 mm	125 °C	
Physical Value Test Method Dimensional Stability 0.0 % ASTM D1042 ISO 2796	3.00 mm	125 °C	
Physical Value Test Method Dimensional Stability 0.0 % ASTM D1042 ISO 2796	6.00 mm	125 °C	
Dimensional Stability 0.0 % ASTM D1042 ISO 2796	Physical		Test Method
			ASTM D1042
	Outdoor Suitability	f2, f1	

