ANTIFLEX®-2MC/ITO

Technical Data Sheet

ANTIFLEX®-2MC/ITO is ttv's precision cast acrylic (PMMA) **LUXACRYL**® with hard coating and antireflection multi-coating on both surfaces. Front surface with special ANTI-FINGER-PRINT coating for easier cleaning. Conductive ITO (Indium Tin Oxide) layer underneath the optical AR coating for EMI/RFI shielding: < 100 Ω / \square each surface, i.e. < 50 Ω / \square both surfaces combined.

Applications: mainly used for applications requiring EMI/RFI shielding (Faraday cage).

Standard sheets: clear, in thicknesses from 1.5 to 3.0 mm; thickness tolerance \pm 0,1 mm.

ttv also supplies cut to size or machined to customer's drawings (including silk screen printing and adhesive; silver lacquer (busbar) for contacting on request.

Pencil Hardness ASTM D-3363 approx. 6 − 8 OPTICAL Transmission ASTM D-1003 % >= 9 Reflectance % <= THERMAL Heat Distortion Temperature ASTM D-648 ℃ 110 Maximum Continuous Temperature ℃ 80 Coefficient of Thermal Expansion ASTM D-696 1/℃ 7x 10 Coefficient of Thermal Conductivity ASTM C-177 W/mK 0.1 MECHANICAL Rupture Strength (flexural) ASTM D-790 kg / cm² 80 Elongation ASTM D-638 % ELECTRICAL Surface Resistance (per surface) < 10 CHEMICAL "+" = no change, "-" = not resistated (per surface) + Soap Aqua Solution (20%)			· · · · · · · · · · · · · · · · · · ·		
Density ASTM D-792 g/cm³ 1.1 Pencil Hardness ASTM D-3363 approx. 6 − 8 OPTICAL Transmission ASTM D-1003 % >= 9 Reflectance % <= THERMAL Heat Distortion Temperature ASTM D-648 ℃ 110 Maximum Continuous Temperature ℃ 8 Coefficient of Thermal Expansion ASTM D-696 1/℃ 7x 10 Coefficient of Thermal Conductivity ASTM C-177 W/mK 0.1 MECHANICAL Rupture Strength (flexural) ASTM D-790 kg / cm² 80 Elongation ASTM D-638 % ELECTRICAL Surface Resistance (per surface) Ω / □ < 10 CHEMICAL "+" = no change, "-" = not resistated (per surface) + Soap Aqua Solution (20%)	TECHNICAL DATA	TEST METHOD	UNIT	VALUE*	
Pencil Hardness ASTM D-3363 approx. 6 − 8 OPTICAL Transmission ASTM D-1003 % >= 9 Reflectance % <=	PHYSICAL				
OPTICAL Transmission ASTM D-1003 % >= 9 Reflectance % <=	Density	ASTM D-792	g/cm³	1.19	
Transmission ASTM D-1003 % >= 9	Pencil Hardness	ASTM D-3363		approx. 6 – 8 H	
Reflectance % <= THERMAL Heat Distortion Temperature ASTM D-648 ℃ 116 Maximum Continuous Temperature ℃ 86 Coefficient of Thermal Expansion ASTM D-696 1/℃ 7x 10 Coefficient of Thermal Conductivity ASTM C-177 W/mK 0.1 MECHANICAL Rupture Strength (flexural) ASTM D-790 kg / cm² 80 Elongation ASTM D-638 % 80 ELECTRICAL % Surface Resistance (per surface) Ω / □ < 10	OPTICAL				
THERMAL Heat Distortion Temperature ASTM D-648 ℃ 110 Maximum Continuous Temperature ℃ 80 Coefficient of Thermal Expansion ASTM D-696 1/℃ 7x 10 Coefficient of Thermal Conductivity ASTM C-177 W/mK 0.1 MECHANICAL Rupture Strength (flexural) ASTM D-790 kg / cm² 80 Elongation ASTM D-638 % ELECTRICAL Surface Resistance (per surface) Ω / □ < 10	Transmission	ASTM D-1003	%	>= 98	
Heat Distortion Temperature ASTM D-648 ℃ 110 Maximum Continuous Temperature ℃ 80 Coefficient of Thermal Expansion ASTM D-696 1/℃ 7x 10 Coefficient of Thermal Conductivity ASTM D-696 1/℃ 7x 10 MECHANICAL W/mK 0.1 Rupture Strength (flexural) ASTM D-790 kg / cm² 80 Elongation ASTM D-638 % ELECTRICAL Surface Resistance (per surface) Ω / □ < 10	Reflectance		%	<= 1	
Maximum Continuous Temperature ℂ 80 Coefficient of Thermal Expansion ASTM D-696 1/℃ 7x 10 Coefficient of Thermal Conductivity ASTM C-177 W/mK 0.1 MECHANICAL Rupture Strength (flexural) ASTM D-790 kg / cm² 80 Elongation ASTM D-638 % ELECTRICAL Surface Resistance (per surface) Ω / □ < 10	THERMAL				
Coefficient of Thermal ExpansionASTM D-696 $1/^{\circ}$ C $7x \cdot 10^{\circ}$ Coefficient of Thermal ConductivityMECHANICALNumber of Thermal ConductivityASTM C-177W/mK0.1MECHANICALASTM D-790kg / cm²80ElongationASTM D-638%ELECTRICAL $0 / \square$ $0 / \square$ $0 / \square$ Surface Resistance (per surface) $0 / \square$ $0 / \square$ $0 / \square$ $0 / \square$ CHEMICAL $0 / \square$ CHEMICAL $0 / \square$	Heat Distortion Temperature	ASTM D-648	C	110	
Coefficient of Thermal ConductivityASTM C-177W/mK0.1MECHANICALRupture Strength (flexural)ASTM D-790kg / cm²80ElongationASTM D-638%ELECTRICAL Ω / \square < 10CHEMICAL"+" = no change, "-" = not resistant to propyl Alcohol+ Soap Aqua Solution (20%)	Maximum Continuous Temperature		${\mathfrak C}$	80	
Coefficient of Thermal ConductivityASTM C-177W/mK0.1MECHANICALRupture Strength (flexural)ASTM D-790kg / cm²80ElongationASTM D-638%ELECTRICAL Ω / \square < 10CHEMICAL"+" = no change, "-" = not resistant to propyl Alcohol+ Soap Aqua Solution (20%)	Coefficient of Thermal Expansion	ASTM D-696	1/℃	7x 10 ⁻⁵	
Rupture Strength (flexural) ASTM D-790 kg / cm² 80 Elongation ASTM D-638 % ELECTRICAL Surface Resistance (per surface) Ω / \square < 10 CHEMICAL "+" = no change, "-" = not resistance (per surface) + Soap Aqua Solution (20%)	Coefficient of Thermal Conductivity	ASTM C-177	W/mK	0.17	
ElongationASTM D-638%ELECTRICAL Ω/\Box < 10Surface Resistance (per surface) Ω/\Box < 10CHEMICAL"+" = no change, "-" = not resistant + Soap Aqua Solution (20%)	MECHANICAL				
ELECTRICAL Surface Resistance (per surface) Ω / \Box < 10	Rupture Strength (flexural)	ASTM D-790	kg / cm²	800	
Surface Resistance (per surface) Ω / \square < 10 CHEMICAL "+" = no change, "-" = not resistant + Isopropyl Alcohol	Elongation	ASTM D-638	%	3	
CHEMICAL"+" = no change, "-" = not resistant+ Isopropyl Alcohol+ Soap Aqua Solution (20%)	ELECTRICAL				
+ Isopropyl Alcohol + Soap Aqua Solution (20%)	Surface Resistance (per surface)		Ω/□	< 100	
	CHEMICAL "+" = no change, "-" = not resistant				
+ Water	+ Isopropyl Alcohol				
	+ Water	- Sulfuric Acid			
- Sodium Carbonate	- Sodium Carbonate				

^{*} Values provided cannot be guaranteed in your application due to circumstances beyond our control.



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