


TIGHT TOLERANCE ACRYLIC

PROPERTIES	METHOD	UNIT	NORMAL GRADE	HARD COAT GRADE
Specific Gravity	ASTM D-792		1.19	1.19
OPTICAL				
Refractive Index	ASTM D-542		1.49	1.49 (1.54)
MECHANICAL				
Elongation	ASTM D-638	%	5	5
Tensile Rupture Strength	ASTM D-638	kg/cm ²	750	650
Flexural Rupture Strength	ASTM D-790	kg/cm ²	1200	800
THERMAL				
Heat Distortion Temperature	ASTM D-648	°C	110	110
Maximum recommended continuous temperature		°C	80	80
Coefficient of Thermal Expansion	ASTM D-696	cm/cm/°C	7 x10	7 x10
Specific Heat	ASTM D-638	cal/gr°C	0.35	0.35
DURABILITY				
Hot Resistance	80°C x 100hr		No Change	No Change
Cold Resistance	-40°C x 100hr		No Change	No Change
Humid Resistance	60°Cx90%x100hr		No Change	No Change
Thermal Cycle	-40°C <-> 80°C (10 cycles)		No Change	No Change
ELECTRICAL				
Surface Resistivity			10	10
Pencil Hardness			2H	6~8H
CHEMICAL				
Methyl Alcohol (50%)			No Change	No Change
Ethyl Alcohol (50%)			No Change	No Change
Soap Aqua Solution			No Change	No Change
Toluene			Dissolved	No Change
Acetone			Dissolved	No Change
Benzene			Swollen	No Change
Ethylene Dichloride			Dissolved	No Change
ADHESION	K-5400			100/100
FLAMMABILITY	UL Standard	>=0.8mm Thickness	94HB	94HB

This material is a precision cast acrylic sheet with high optical clarity and a tight tolerance not found in normal cast acrylics. It is available in 0.2 to 5.0mm thickness.

Tight tolerance acrylic is ideal for Model making. It has unrivalled optical qualities. Emkay Plastics Ltd stocks tight tolerance acrylic in the following thickness 

0.2mm 400 x 550mm	0.5mm 1000 x 1000mm
0.8mm 1000 x 1000mm	1.0mm 1000 x 1000mm
1.5mm 1000 x 1000mm	2.0mm 1000 x 1000mm
2.5mm 1000 x 1000mm	3.0mm 1000 x 1000mm
4.0mm 1000 x 1000mm	5.0mm 1000 x 1000mm

Tolerances are +/-0.2mm