



# Physical Properties TechPlast XT Hardcoat/Anti-Static Sheet

PROPERTY	TEST METHOD	UNITS	VALUE
<b>SPECIFIC GRAVITY</b>	ASTM D-792		1.19
<b>HARDCOAT HARDNESS/RESISTIVITY</b>			
Pencil Hardness			6H
Taber Abrasion	ASTM D-1044	Change in Haze	100 cycles < 2%
Surface Resistivity	ASTM D-257	ohms/cm <sup>2</sup>	1x10 <sup>12</sup> - 1x10 <sup>13</sup>
<b>OPTICAL</b>			
Refractive Index	ASTM D-542		1.52 (1.46 uncoated)
Light Transmission	ASTM D-1003		
Total		%	92
Haze		%	2
<b>MECHANICAL</b>			
Tensile Strength Maximum	ASTM D-638	PSI	10,100
Tensile Elongation Maximum	ASTM D-638	%	5.1
Modulus of Elasticity	ASTM D-638	PSI	431,000
Flexural Strength Maximum	ASTM D-790	PSI	14,900
Izod Molded Notch at 73oF.			
1/2" x 2 1/2" x 11/4" bar	ASTM D-256-56	Ft.lb./inch of notch	0.4
Izod Milled Notch at 73oF.	ASTM D-256-56	Ft.lb./inch of notch	0.28
<b>THERMAL</b>			
Max Rec Continuous Service		Degrees F	170-190
Softening Temperature		Degrees F	210-220
Melting Temperature		Degrees F	300-315
Deflection Temperature	ASTM D-648		
Load, Unannealed			
3.6 degree F/minute, 264 psi		Degrees F	190
3.6 degree F/minute, 66 psi		Degrees F	205
<b>ENVIRONMENTAL DURABILITY</b>			
High Humidity Testing	60oC/95%rh/168 Hours		*Pass
Long Term Heat Resistance	40oC/168 Hours		*Pass
High Heat Resistance	60oC/12 Hours		*Pass
Long Term Low Temp.	-20oC/168 Hours		*Pass
	(-20oC x 12 Hours)		
Thermal Cycling	60oC x 12 Hr. x 3 Cycles		*Pass. No development of haze, crazing, or warping
<b>SOLVENT RESISTANCE</b>			
	NA	Hours	
Acetone			*>16
Methanol			*>16
Windex®			*>16
Methyl ethyl ketone (MEK)			*8
Methylone Chloride			*8
Gasoline			*>16
Toluene			*>16
40% Sulfuric Acid			*>16
* Hours measured to failure as evidenced by crazing			
<b>Sound Transmission (.125" thick)</b>	E-90-70, E-413	db	27