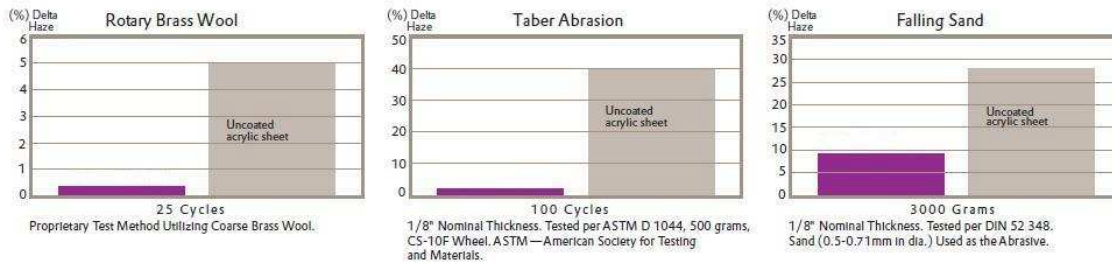




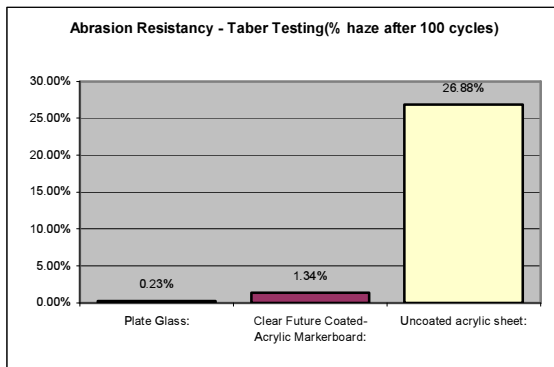
Clear Future Markerboards are created with our 1/2" thick, high-grade acrylic surface specially-coated to be non-porous to resist marker-ghosting and be abrasion-resistant.

Abrasion Resistance

Assessing how well a product will perform under the conditions of an application must take into account the type of abuse or abrasion the product will encounter. Abrasion can be divided into three types. Scratching is the most common type of abrasion and is often caused by frequent cleaning and handling. Resistance to scratching is evaluated by using a rotary brass wool test in which a coarse brass-scouring pad is rubbed on the coated sheet surface by automated test equipment. Resistance to wear is measured by exposing a sample to continuous contact with an abrasive wheel in the Taber abrasion test. Resistance to particle impacts, such as sand, is measured using the falling sand test. This test simulates the type of abrasion typically experienced by a motor vehicle windshield. The following graphs show typical test data demonstrating the outstanding properties that our surface offers versus conventional uncoated acrylic sheet.



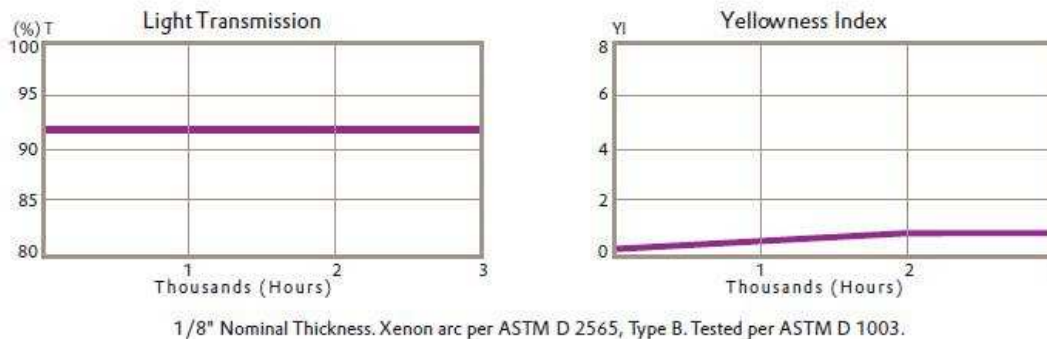
In comparison to glass...



... our surface is nearly as abrasion resistant.

Weathering

Clear Future Surfaces maintain original appearance and color despite heat, cold, sunlight and humidity. It withstands the adverse effects of outdoor weathering and has been found to experience no significant loss of light transmittance or any appreciable increase in yellowness after an accelerated weathering period of 3000 hours, Xenon Arc. This should ensure many years of trouble free performance.



Physical Properties

Property	ASTM Method	Typical Substrate Value (3.0mm Thickness)
Mechanical		
Tensile Strength	D 638	10,000 psi (69 M Pa)
Elongation, Rupture	—	4.5%
Modulus of Elasticity	—	400,000 psi (2800 M Pa)
Flexural Strength	D 790	17,000 psi (117 M Pa)
Modulus of Elasticity	—	480,000 psi (3300 M Pa)
Izod Milled Notched	D 256	0.4 ft.lbs/in.(21.6 J/m) of notch
Optical		
Light Transmission, Total	D 1003	92%
Thermal		
Deflection Temperature Under Load (264 psi)	D 648	195°F (91°C)
Vicat Softening Point	D 1525	220°F (105°C)
Coefficient of Linear Thermal Expansion	D 696	0.000040 in/in·°F (.000068 m/m·°C)
Coefficient of Thermal Conductivity	C 177	1.3 BTU/hr.ft. ² ·°F/in (.19W/m·°K)
Flammability		
Burn Rate	D 635	1.0 in/min (25 mm/min)
Self-Ignition Temperature	D 1929	830°F (443°C)
Smoke Density Rating	D 2843	10%
Abrasion Resistance of the Coating		Change in Haze
Rotary Brass Wool (25 cycles)	Proprietary method	< 1%
Taber Abrasion (100 cycles)	D 1044	< 2%
Falling Sand (3,000 grams)	DIN 52 348	< 10%

Weight

Our surface is half the weight of a comparative thickness of glass.

In conclusion, Clear Future Markerboards are impact resistant, highly-scratch resistant and of optimum “weight vs. thickness” for a handsome presentation and positive installation experience.