

# SUPERCOAT™

## PERFORMANCE PROPERTIES

## HARD-COATING FOR POLYCARBONATE

- ✦ Post-Coated, applied after polycarbonate has been formed
- ✦ Superior Abrasion & Scratch Resistance
- ✦ Solvent / Chemical Resistance

Property	Method	Values
Transparency	550nm, 2mm thick	90.0%
Adhesion	ASTM D3359-87	100/100
#0000 Steel Wool	Haze Gain – ASTM D1044 Z26.1 100 cycle, 500 gram	<3%
Pencil Hardness	ASTM D 3363	7H
Chemical/Solvent Resistance	5% HCL - Acetic Acid - Xylene - Petroleum Ether Acetone - Isopropanol - Nitro-Methane	All Pass
Weathering Resistance	QUV Weathering Exterior Exposure (Arizona, Florida)	1000 hrs; 5 years

## ANTI-FOG

## PERFORMANCE PROPERTIES

## PERMANENT ANTI-FOG COATING FOR POLYCARBONATE

- ✦ Post-Coated, applied after polycarbonate has been formed
- ✦ Mar / Scratch Resistance

Property	Method	Values
Transparency	ASTM D E284, E1348, E4060	97.0%
Adhesion	ASTM D3359-B	100/100
Pencil Hardness	ASTM D 3363	3H – 4H
Water Resistance	ASTM D70	Pass
Impact Resistance	ASTM D2794	Pass
Steam	30 Second Steam Test	Pass
Freeze	10 Minute Freeze Test	Pass

## POLYCARBONATE vs. GLASS

Using formed polycarbonate (Lexan®) gives you multiple advantages over glass: ✦ 1/2 the weight ✦ 250 times stronger  
✦ Noise reduction ✦ Light transmittance ✦ Thermal Properties ✦ Ability to fit custom cabs/enclosures

WEIGHT Lbs./ft. <sup>2</sup>						
Sheet Thickness:	.118"	.177"	.236"	.375"	.500"	
SHIELDS®	.73	1.10	1.46	2.34	3.12	
Glass	1.60	2.40	3.20	4.80	6.40	
% Advantage Over Glass	54%	54%	54%	51%	51%	

LIGHT TRANSMITTANCE		IMPACT STRENGTH ASTM D3763	
Sheet Thickness	% Value of Visible Light	Sheet Thickness	Max. Load Energy for Impact
.118"	86	.118"	55 Ft-Lbs
.177"	85	.177"	80 Ft-Lbs
.236"	83	.236"	110 Ft-Lbs
.375"	79	.375"	160 Ft-Lbs
.500"	75	.500"	220 Ft-Lbs

SUMMER HEAT GAIN BTU/hr.-sq.-°F						
Sheet Thickness:	.118"	.177"	.236"	.375"	.500"	
SHIELDS®	.97	.93	.90	.83	.77	
Glass	1.04	1.04	1.04	1.03	1.03	
% Advantage Over Glass	7%	11%	14%	19%	25%	

DROP DART IMPACT RESISTANCE						
5-pound steel dart, 1" diameter tip, Measured in Ft-Lbs						
1/4" Polycarbonate						
1/4" Acrylic						
1/4" Tempered Glass						
1/4" Laminated Glass						

SOUND TRANSMISSION STC Rating				
Sheet Thickness:	.118"	.236"	.500"	
SHIELDS®	25	31	34	
Glass	23	27	32	
% Advantage Over Glass	8%	13%	6%	

WINTER HEAT LOSS BTU/hr.-sq.-°F						
Sheet Thickness:	.118"	.177"	.236"	.375"	.500"	
SHIELDS®	1.05	1.01	.96	.88	.82	
Glass	1.16	1.15	1.14	1.11	1.09	
% Advantage Over Glass	10%	12%	16%	21%	25%	