



# Alubond Solar Collector Mirror

## SPECIFICATION DATA SHEET - ASCM 93 & 95

Alubond Solar Collector Mirror ( ASCM ) is a result of pioneering research to create an alternative to Glass mirrors. Conventional glass mirrors currently being used in Concentrated Solar Systems are heavy ,expensive and highly breakable.

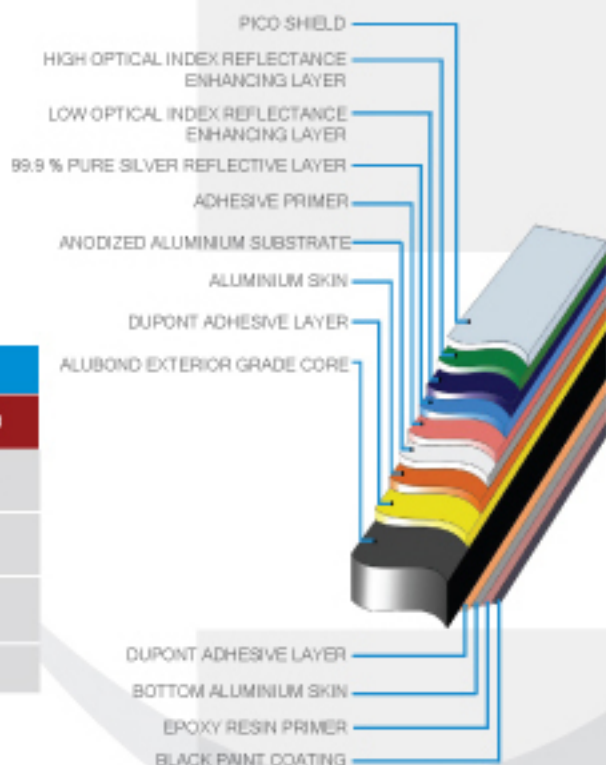
The Alubond Solar Collector Mirror is the light weight, economical and unbreakable solution.

### ASCM - 93 & 95 COMPOSITION

Alubond Solar Collector Mirrors (ASCM) are the new generation multilayered metal and plastic composite panels.

### CHARACTERISTICS

MECHANICAL PROPERTIES		
DESCRIPTION	ASCM 95	TEST STANDARD
180° BEND TEST	NO COATING FAILURE	BS EN ISO 1519 + ASTM D 4145 - 83 (2002)
FALLING BALL IMPACT TEST	NO COATING FAILURE	BS EN ISO 6272-1 ASTM D 1400 - 94
TENSILE STRENGTH (MPA)	125 - 180	ASTM D 638 - 03
ELONGATION	> 2%	ASTM D 638 - 03



WEATHER RESISTANCE PROPERTIES		
DESCRIPTION	ASCM 93 & 95	TEST STANDARD
QUV TEST IN 1000 H	<0.5% LOSS OF SOLAR REFLECTANCE	NO VISIBLE CORROSION OR COLOR SHIFT DIN EN ISO 4893-3
SALT SPRAY TEST 3000H	<1.5% REFLECTANCE	NO CORROSION, PITS, OR OTHER DEFECTS DIN 50021 SS
COEFFICIENT OF THERMAL EXPANSION (CTE)	+/-0.1 MM PER M <sup>2</sup>	ASTM D696-03
TEMPERATURE RESISTANCE	- 50 TO +80°C	ASTM D976
MAXIMUM OPERATING TEMPERATURE	110°C TO 211°C	ASTM D 648
EXTERIOR & COATING WARRANTY	15 YEARS	
PROTECTIVE COATING	PROTECTALL	

## ASCM 93 & 95 - PHYSICAL PROPERTIES

SYSTEM COMPONENT	PROPERTIES
REFLECTOR PANEL	3 MM COMPOSITE METAL
MAINTENANCE	MINIMAL
ABRASION RESISTANCE	GOOD / NO COATING PEEL OFF
PROTECTION IN INVERTED MODE	METAL SKIN PROTECTION
PARABOLIC SHAPE RETENTION	EASY
WEIGHT	4 KGS / M <sup>2</sup>
INSTALLATION	EASY

## PICO SHEILD PERFORMANCE DATA

PROPERTIES	ASCM 93 & 95	TEST METHOD
DRY FILM THICKNESS	10-11 MICRONS	DIN EN 13523 - 1 ASTM D 339 - 92a
RESISTANCE TO SALT SPRAY TEST	600 HOURS - PASSES	DIN EN ISO 9227 NSS ASTM B 117 - 07
RESISTANCE TO HUMIDITY	600 HOURS - PASSES	DIN EN ISO 6270 - 2 CH ASTM D 2247 - 02
CROSSCUT ADHESION TEST	PASSES	DIN EN 13523 - 6, ASTM D 3359 - 02
T - BEND	2 T	DIN EN 13523 - 7 ASTM D 4145 - 83
MEK TEST	60 DBR	MEK TEST ASTM D 4752

## REFLECTIVITY PERFORMANCE ASCM 93 & 95

PRODUCT	TOTAL SOLAR REFLECTANCE	TOTAL REFLECTANCE VISIBLE RANGE	DIFFUSE REFLECTANCE	SPECULAR REFLECTANCE
STANDARD	ASTM 891 -87	ASTM E 1651 DIN 5036-3	DIN 5036-03 1° APERTURE	ISO 7668 600
ASCM - 93	> 91	> 96	< 13	> 86
ASCM - 95	> 93	> 96	< 8	> 92

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