

POLYCARBONATE HARDCOAT

Product Information

Product Description

Polycarbonate hardcoat has a unique silicone Hard Coat with:

- High abrasion resistance
- UV resistance
- High transparency
- High impact resistance

Applications

Machine Guards
Prison Windows

Noise Walls
Bus Shelters

Delivery Program

SHEET	Thicknesses ranging from 3mm to 6mm. 10mm and 12mm Sheet Size 2000 x 1000
	Manufactured Sheet Size 4000 x 2000 Can be cut to 2000 x 2000 2000 x 1000

WEATHERABILITY BY SUNSHINE WEATHER METRE EXPOSURE

TIME OF EXPOSURE	Hard Coat	
	YELLOWING	ADHESION OUT OF 100
Original	-	100
1000 hours	0.5	100
2000 hours	2.0	100
3000 hours	3.0	100
4000 hours	5.5	100
5000 hours	6.0	100

Note

- Yellowing is measured as ΔYI (Yellowing Index).
- Adhesion means the resistance of coating against peeling from the base polycarbonate.
Outline of test: Cross hatch test, by making cuts of 1mm² on 1 cm² area (total 100 squares) and cover it with adhesive tape & then peel off.
Evaluation of adhesion is done by counting non peeled

Physical Properties

Specific Gravity 1.2
ASTM D 792

Tensile Strength 64
ASTM D 638, Units Mpa

Elongation 80
ASTM D 638, Units %

Flexural Strength 93
ASTM D 790

Flexural Modulus 2350
ASTM D 790, Units Mpa

Izod Impact Strength 784
ASTM D 256, Units Phi (measured on 3mm thick sheet)

Heat Deflection 135
ASTM D 649, Units °C

Temperature under load -
Units 1.82 Mpa

Co-efficient of Linear Thermal Expansion 7
ASTM D 696, Units x 10/^{°C}

Flammability Self Extinguishing
ASTM D 635

Light Transmittance 89
ASTM D 1003, Unit %

SURFACE HARDNESS

PROPERTY Hard Coat

Tabor Abrasion (CS-IOF wheel, 500g load)
500 rounds 3
1000 rounds 5
(Increase Haze %)

Falling Sand (Carborundum #80)
800g 3
1600g 6

- CNC
- Designing
- 3D Printing
- Consulting
- Engineering
- 3D Scanning

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