

## ACRYLITE® Soundstop

### Transparent noise barriers

#### Product

ACRYLITE® Soundstop is a highly transparent specialty grade of acrylic.

#### Properties

In addition to the well-known and proven properties of ACRYLITE®, such as

- excellent light transmission and brilliance
- extremely high weather resistance
- ease of fabrication
- high surface hardness
- low weight - half the weight of glass
- 11 times the impact strength of glass
- 100% recyclability,

ACRYLITE® Soundstop offers the following special features:

- It prevents drivers from feeling they are driving through a “tunnel.”
- ACRYLITE® Soundstop offers a superior sound reduction rating (STC) of 32 dB or higher by ASTM E 90.
- Large noise barrier elements reduce the need for steel supporting structures and enhance the transparency of the noise barrier.
- ACRYLITE® Soundstop is available in transparent colors.

#### Applications

These properties make ACRYLITE® Soundstop especially suitable for

- noise control along roads and railways
- wind barriers on bridges
- impact resistant glazing for pedestrian bridges and trails / greenways

#### Machining

- ACRYLITE® Soundstop can be machined just like standard ACRYLITE®.

#### Physical forms

ACRYLITE® Soundstop is available in the following sizes and thicknesses:

Length: up to 20ft

Width: 8ft

Thicknesses: 15 - 20 - 25 mm

Other lengths and thicknesses are available on request.



## Typical Values – ACRYLITE® Soundstop

Property	Test Standard	Value
Specific Gravity	ASTM D-792	1.19
Weight per unit area	15 mm thick	3.66 lbs / ft <sup>2</sup>
Sound Transmission Coefficient	ASTM E-90	32 dB at 15mm
Sound Transmission Coefficient	ASTM E-90	34 dB at 20mm
Sound Transmission Coefficient	ASTM E-90	36 dB at 25mm
Refractive Index	ASTM D-542	1.49
Light Transmission, Total Weathered 5 years AZ	ASTM D-1003	92% 92%
Haze Weathered 5 years AZ	ASTM D-1003	1% 1.5%
Yellowness Index Weathered 5 years AZ	ASTM E 313	<1 1.5
Tensile Strength		10,000 psi (69 MPa)
Elongation at Break (%)		4.5
Modulus of Elasticity	ASTM D-638	400,000 psi (2,800 MPa)
Flexural Strength		17,000 psi (117 MPa)
Modulus of Elasticity	ASTM D-790	480,000 psi (3,300 MPa)
Compressive Strength (Yield)	ASTM D-695	17,000 psi (117 MPa)
Resistance Against Stone Projectiles (15 mm thickness)	EN 1794-1	Pass
Impact-Windborne Debris in Hurricanes	ASTM E-199	Pass

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