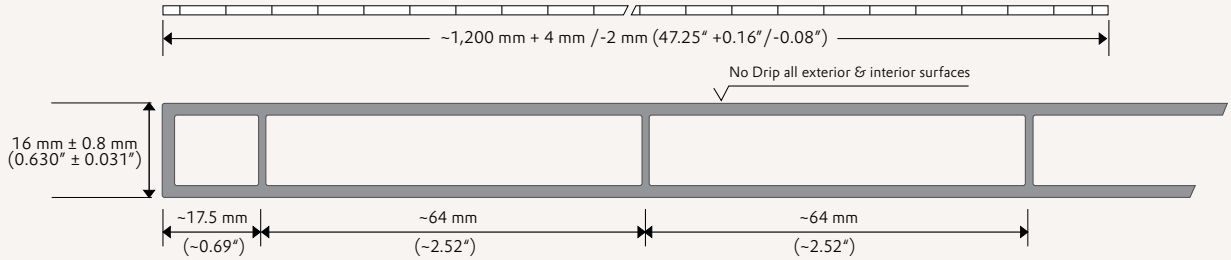
# 16 mm ACRYLITE® Alltop high impact acrylic double-skin sheet




16 mm ACRYLITE® Alltop high impact acrylic double-skin sheet is a light transmitting, heat-insulating and weather-resistant double-skin sheet made of impact-modified acrylic (polymethyl methacrylate, PMMA) polymer. It was designed as an interior or exterior glazing panel for commercial, institutional, educational and research Greenhouses where high light levels, greater optics and impact resistance are desired. Also ideal for interior or exterior commercial and architectural construction.

## Advantages of 16 mm ACRYLITE® Alltop high impact acrylic double-skin sheet

- Extraordinary clear sheet is UV-resistant and includes a 30-year warranty against yellowing.
- ACRYLITE® Alltop has a light transmission of 89%.
- ACRYLITE® Alltop's patented no drip coating is applied on every surface, including inside the flutes. The coating allows for maximum light transmission virtually eliminating all condensation droplets both inside the greenhouse and flutes.
- Hail-resistant with a 10-year warranty for withstanding hailstones with a kinetic energy of 1 joule.
- Up to 50% better energy savings over single layer glazings.

## Warranties

Non-prorated, full replacement 30 year non-yellowing, 10 year light transmission and 10 year hail warranties. For details see warranty.

## Technical Data (Typical values)

| | Light Transmittance D65 | Total Energy Transmission Values | Shading Coefficient (SC) |
|---|---|---|---|
| Clear (00721) | 89% | 82% | 0.94 |
| UV Transmission | blocking | | |
| U-value | 2.5 $W/m^2K$ (0.49 $BTU/hr \cdot ft^2 \cdot {}^oF$) | | |
| R-value | 2.04 $^oF/BTU \cdot hr \cdot ft^2$ | | |
| Coefficient of Heat Expansion ($\alpha$) | 0.09 mm/m °C (0.00005 in/in/°F) | | |
| Expansion Due to Heat and Moisture | 6 mm/m (1/16″/ft) | | |
| Thickness | 16 mm (5/8″) | | |
| Rib Spacing | 64 mm (2 1/2″) | | |
| Width | 1200 mm (47 1/4″) | | |
| Length | up to 8550 mm (28 ft) | | |
| Approximate Area Weight | 4.9 $Kgm^2$ (1 $lb/ft^2$) | | |
| Weighted Sound Reduction Index | 22 dB | | |
| Maximum Service Temperature | 70°C (160 °F) | | |
| ASTM D-635 (Rate of Burn) | C2 / CC2 | | |
| ASTM D-1929 (Self Ignition Temp) | 830 °F | | |
| ASTM D-2843 (Smoke Density Rating) | 7.0 % | | |
| CAN/ULC S102.2 | < 150 Flame Spread Classification | | |
| DIN 4102 | normal combustability, B2 | | |

Values are approximate.

### Environmental Sustainability

ACRYLITE® Alltop high impact acrylic double-skin sheets' natural heat insulating qualities can translate into significant energy savings, making them an ideal choice for eco-lighting and building green. The sheets are built to last using environmentally sound manufacturing processes in facilities that have received ISO-14001 environmental certification. ACRYLITE® Alltop acrylic sheet is environmentally friendly and can be recycled.

### No Drip

Compared to our standard No Drip double-skin sheets, which have the proven water-dispersing coating on one side only, the Alltop sheets are coated on all surfaces, including inside the flutes.

### Fire Behaviour

- The fire behavior of ACRYLITE® is rated as C2 or CC2 according to ASTM D-635.
- ACRYLITE® burns almost entirely without smoke according to DIN4102 and ASTMD-2843 and is easily extinguished.
- The smoke gases produced by ACRYLITE® are neither accutely toxic according to DIN 53436 nor corrosive according to DIN VDE 0482-267.

### Load Bearing Capacity

Due to its excellent rigidity, large areas can be glazed quickly and efficiently. Few intermediate supports are required to carry substantial uniformly distributed loads (refer to Support Spacing data chart). Reduction of structural members means less shading thus increasing light levels.

## Support Spacing

Refer to the Support Spacing Chart for loading recommendations, however, its recommended for you to determine your local bulding code requirements. If the sheet is ripped and the skin is more than 15 mm (5/8") from a rib, an infil spacer is necessary for proper support.


## Support Spacing Chart

16 mm ACRYLITE® Alltop
high impact acrylic double-skin sheet
width as delivered 1200 mm (47 1/4")

| Load | | Support Spacing | |
|---|---|---|---|
| [N/m²] | (lb/ft²) | [m] | (in) |
| 750 | 15.7 | 5.1 | 200 |
| 1000 | 20.9 | 4.2 | 165 |
| 1250 | 26.1 | 3.5 | 137 |
| 1500 | 31.3 | 2.9 | 114 |
| 1750 | 35.5 | 2.5 | 98 |
| 2000 | 41.8 | 2.2 | 86 |
| 2250 | 47 | 2.0 | 78 |
| 2500 | 52.2 | 1.8 | 70 |
| 2750 | 57.4 | 1.7 | 67 |
| 3000 | 62.6 | 1.6 | 63 |



Certified to DIN EN ISO 9001 (Quality) and DIN EN ISO 14001 (Environment).



January 2013

**Evonik Cyro LLC**
299 Jefferson Road
Parsippany, NJ 07054
USA
**PHONE** +1 800 631-5384

www.acrylite.net
www.evonik.com

**Evonik Cyro Canada Inc.**
180 Attwell Drive, Suite 101
Toronto, Ontario M9W 6A9
Canada
**PHONE** +1 888 233-4527

www.acrylitebuildingproducts.com