

ACRYLITE® Resist diffuse high-impact acrylic



Product

ACRYLITE® Resist high-impact acrylic is a light transmitting, heat-insulating and weather-resistant sheet made of impact-modified acrylic (polymethyl methacrylate, PMMA) polymer.

This 16 mm multi-skin acrylic sheet is now available with diffusion properties, and ideal for commercial greenhouse applications where diffused light is desirable for optimized crop growth, while maintaining overall high light levels.

ACRYLITE® Resist diffuse high-impact acrylic scatters light, achieving a more homogenous light distribution that penetrates deeply into the plant canopy, wrapping plants in light and activating more photosynthesis. This translates to fewer hot spots, fewer shady spots, better growth, stronger plants and brighter colors.

This new sheet provides increased light into the greenhouse in morning and evening despite the low angle of light, and helps greenhouse temperatures during summer months, reducing the need for shade cloth.

As with all ACRYLITE® Resist high-impact multi-skin sheets, this product offers the additional advantages of:

- UV-resistance with a 30-year warranty against yellowing
- Non-toxic biologically neutral Anti-Algae Application
- Excellent protection against excessive amounts of UV radiation
- Up to 50% energy savings and minimizes CO2 emissions
- Hail-resistant with a 10-year guarantee for withstanding hailstones with a kinetic energy of 1 joule
- High light transmission in the PAR and visible spectral energy wavelengths
- Impact resistance during transportation, handling and installation

Technical Data (Typical values)

	Clear Diffused (ORS07)
Light Transmittance D65	84%
Total Energy Transmission Values	80%
Shading Coefficient (SC)	0.92
Hemispherical	.72%
Haze	65%
Light Diffusion	3° half angle
UV Transmission	blocking
U-value	2.5 W/m ² K (0.49 BTU/hr • ft ² • °F)
R-value	2.04 °F/BTU • hr • ft ²
Coefficient of Heat Expansion (α)	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	32 mm (1 1/4")
Width	1200 mm (47 1/4")
Length	up to 10973 mm (36 ft)
Approximate Area Weight	4.5 Kgm ² (0.9 lb/ft ²)
Weighted Sound Reduction Index	24 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
Minimum permissible cold-forming radius of 96" (150 x thickness)	

Values are approximate.

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