

Ingemann Components

Lumieo® Glacier

Sewon UV-stabilized



Description:

Lumieo Glacier is a diffuser sheet made from PS. The diffusion comes from a combination of very fine structures and special diffusing additives.

Application:

Lumieo Glacier is an excellent choice for applications where lamp hiding, and transmission efficiency are required. The Lumieo Glacier comes with different transmission and diffusion. The lowest transmission has the highest diffusion, i.e. the 53% transmission has a diffusion above 80, while the 93% has a diffusion slightly above 1

Service information:

For samples, pricing and delivery please contact us at:

+45 4618 6644

Email:

sales@ingemanncomponents.com

Looking for a solution with this product, click [here](#).

Product data	
Standard Material	PS – polystyrene
Available size:	Rectangle up to 1850 mm x 1250 mm
Thickness	Standard 1.5 mm \pm 0.1mm (1.2mm – 3mm upon request)
Refractive Index	1.591
Transmittance	Varies from 53%-93%
Temperature Range	-40°C to +70°C

LUMIEO® GLACIER

High diffusing PS sheet with UV-stabilizing treatment preventing yellowing

53%-93% Transmission
1.2-3mm thickness
Max temp +70°C
Custom sizes available

Ingemann Components
Tingbjergvej 6
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Denmark
www.ingemanncomponents.com

The logo for Ingemann Components, featuring the word "ingemann" in a bold, lowercase sans-serif font with a small circular icon above the 'i', and the word "Components" in a smaller, uppercase sans-serif font below it.

Technical Specs - Lumieo® Glacier

Properties	1.5 mm	Notes
Physical -		
Density	1.05 g/cm ³	
Rockwell Hardness	150	
Optical -		
Transmittance	53% – 93%	
Refractive index	1.591	
Reflection	N/A	
Mechanical -		
Tensile strength	45 MPa	
Thermal -		
Long term temp.	-40°C to +70°C	
Short term temp.	90°C	
Melting temp.	210°C	
Surface	Structured on both sides	
UV stable	Yes	
Dirt depreciation	Anti-static treatment	
Chemical Resistance		See next page
Thermal expansion	8 K ⁻¹ ×10 ⁻⁵	
Glow wire test IEC 60695-2-12	GWFI: 650/1.5 Results: Pass	650°C 1.5 mm thickness
Fire Rating	N/A	

Processing options at Ingemann Components

Processing	Yes/No	Notes
Milling	Yes	Recommended processing
CNC Knife	No	
Laser Cutting	Yes	
Saw	Yes	
Die Cut	No	
Thermo-forming	Yes	
Print	Yes	

Product	PS Diffuser Plate				
Thickness	Standard 1.5mm				
Total Transmittance	53%	60%	70%	80%	93%
Diffusion Coefficient	> 80	> 70	> 50	> 40	> 1

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Chemical Resistances

Chemical resistance at 20°C			
Acetone	-	Ethyl acetate	-
Ammonia	+	Glycerin	+
Amyl Alcohol	o	Fuel oil	o
Benzene, free from aromatics	-	Hexane	+
Benzole	-	Isopropanol	+
Boric Acid	+	Coffee	na
Butanol	na	Caustic potash solution	o
Chlorinated hydro-carbon	na	Ketone	-
Chloroform	-	Methylene chloride	-
Chlorinated water/air	o	Lactic acid 10%	+
Dibutyl phthalate	-	Mineral oil	+
Diocetyl phthalate	-	Caustic soda	+
Glacial acetic acid	-	Nitrocellulose lacquer	-
Acetic essence	-	Oxalic acid	+
Aqueous acetic acid	+	Wax	+
Ethanol	o	Hydrogen peroxide	+
Acidity of wine	na	Hydrochloric acid conc. 35%	+
Xylene	-	Sodium carbonate	+
Paraffin	+	Salad vinegar	na
Petroleum ether	-	Stearic Acid	+
Phosphoric acid 10%	+	Tea	+
Sulphuric acid 10%	+	Turpentine	-
Nitric acid 10%	o	Toluene	-
Hydrochloric acid 10%	+	Diluting agent	na

- + Resistant
- o Limited resistance
- Not Resistant
- na Not available

LUMIEO® GLACIER

At 20°C PS is resistant to hydrocarbons, aromatic free carburetor fuel, mineral oils, vegetable- and animal fats and oils, water, aqueous salt solutions, diluted acids and alkalis. Aromatic hydrocarbons and hydrogen chlorides, ester, ether and ketones attack and degrade PS.

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