

Optical foils

Light-diffusing foils for every application

With our optical foils in various designs we offer the ideal solution for every requirement. Whether modern lighting concepts with mostly tiny LED light sources or flat lighting systems.

With our light-diffusing foils you achieve an optimal light diffusion without visible hotspots at highest transmission. Point-shaped light sources are transformed into pleasantly uniformly illuminated surfaces.

APPLICATIONS

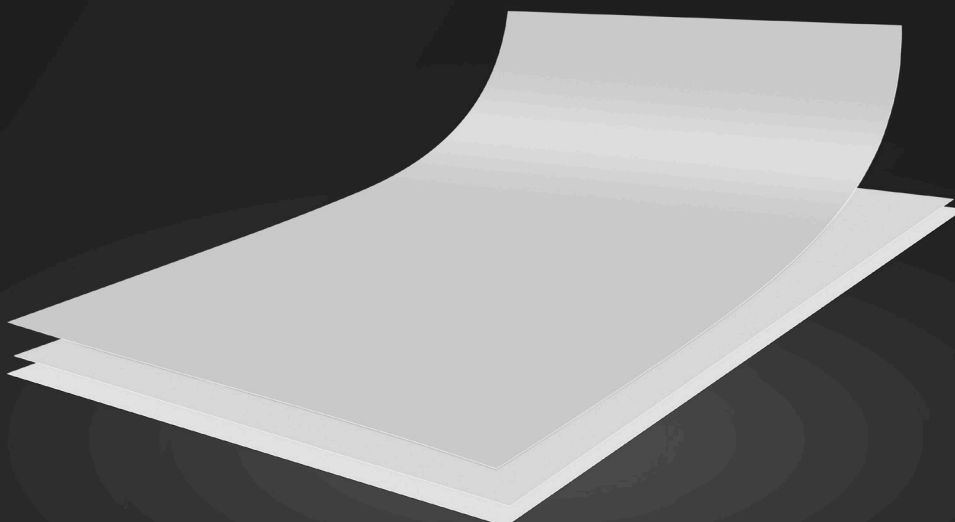
- lines of light
- strip lighting
- ceiling panels
- ideally suited for flat luminaires with lateral LED feed

YOUR ADVANTAGES AT A GLANCE

- homogeneous appearance due to excellent light scattering
- light lines / bands without dark spots
- contribute to reducing the total weight of your luminaire
- energy efficient and durable
- excellent for cutting and thermoforming
- textured spacer on one side / glossy on reverse side

GENERAL INFORMATION

Material	PMMA impact resistant
Wall thickness	0.35 mm +/- 0.03 mm
Surface	1 matt side / 1 glossy side
Available dimensions	- entire coil (rolled) – 250 m x 700 mm - stripes – 3050 mm x 700 mm - individual cutting (coils, stripes etc.)
Available colours	High Output, Diffuse No. 1, Diffuse No. 2

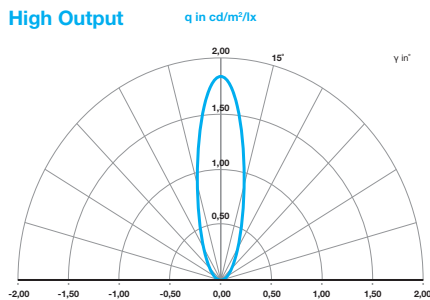


TECHNICAL SPECIFICATIONS & SECOND OPERATION POSSIBILITIES

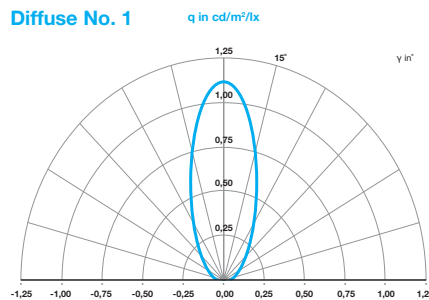
OPTICAL CHARACTERISTICS	Unit	NORM	HIGH OUTPUT	DIFFUSE NO. 1	DIFFUSE NO. 2
Transmission ¹	%	DIN 5036-3	90	86	77
Half-value angle ¹ γ	°	DIN 5036-3	16	22	45
Diffusion ¹ σ	[1]	DIN 5036-3	0.22	0.33	0.58

Light distribution curves

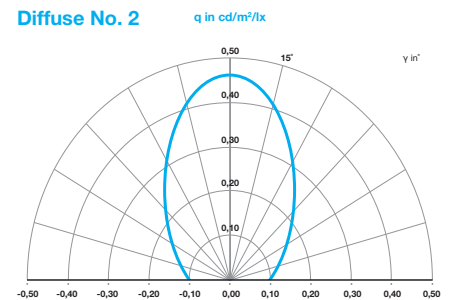
High Output



Diffuse No. 1



Diffuse No. 2



MECHANICAL CHARACTERISTICS	Unit	NORM	HIGH OUTPUT	DIFFUSE NO. 1	DIFFUSE NO. 2
Tensile modulus ²	MPa	DIN EN ISO 527-1-3	1850	1850	1850
Max. stress ²	MPa	DIN EN ISO 527-1-3	47.9	47.9	47.9
Strain ²	%	DIN EN ISO 527-1-3	5.7	5.7	5.7
Yield stress ²	MPa	DIN EN ISO 527-1-3	44.2	44.2	44.2
Nominal strain ²	%	DIN EN ISO 527-1-3	38.5	38.5	38.5

THERMAL CHARACTERISTICS	Unit	NORM	HIGH OUTPUT	DIFFUSE NO. 1	DIFFUSE NO. 2
Heat deflection temperature (1.80 MPa)	°C	ISO 75-1/-2	93	93	93
Coefficient of linear expansion (lengthwise)	10 ⁻⁶ /K	ISO 11359-1/-2	90	90	90

PHYSICAL CHARACTERISTICS	Unit	NORM	HIGH OUTPUT	DIFFUSE NO. 1	DIFFUSE NO. 2
Water absorption ³	%	similar to ISO 62	1.8	1.8	1.8
Moisture absorption ⁴	%	similar to ISO 62	0.5	0.5	0.5
Density	g/cm ³	ISO 1183	1.16	1.16	1.16

SECOND PROCESSING POSSIBILITIES

Cutting Punching Milling Thermoforming Printing Coating

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¹ Measured with standard light A; ² In direction of extrusion; ³ Water, 23°C, 24h;
⁴ 23°C/50% relative humidity