

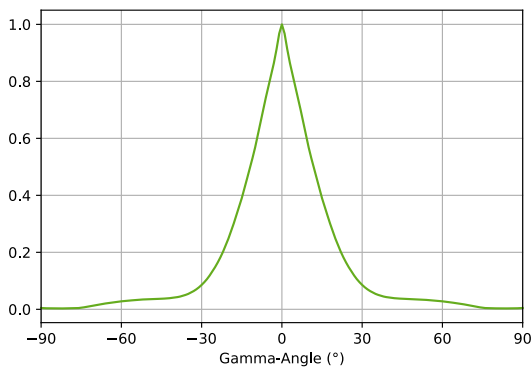
BASF NovaFlex Sustainable-Diffuser

Balancing performance and aesthetics.

Technical Data Sheet

BASF Sustainable-Diffuser S-D40-125 Film

BASF Sustainable-Diffuser S-D40-125 is a thin optical film with a unique microstructured surface. It offers exceptional performance in terms of both aesthetics and energy efficiency. By utilizing the certified biomass balance approach and incorporating post-consumer plastic, this product enables a reduction of around 40% in CO₂ emissions. It provides excellent LED-hiding capabilities and high transmission, enhancing the overall appearance and energy balance of your luminaires.



Please note that the optical performance data presented here are typical values and may vary greatly depending on the design of your luminaire. The mean values over all C-planes are displayed. These measurements were obtained using a collimated light source in a photogoniometer.

⁽¹⁾ Product carbon footprint data is based on assumptions and approximations valid at the time of data collection. For more information, please visit <https://www.basf.com/global/en/who-we-are/sustainability/we-drive-sustainable-solutions/quantifying-sustainability/product-carbon-footprint.html>

⁽²⁾ measured for light at 0° angle of incidence in typical application direction

⁽³⁾ for substrate

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our products, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the products for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein are for general information purpose only; they may change without prior information and do not constitute the agreed contractual quality of the products (product specification). It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

Sustainability Data

Product Carbon Footprint compare to Diffuser D40-125 ~ 40% less CO₂ emissions ⁽¹⁾

Material Micro-structured coating on 80% post-consumer recycled PET

Optical Data

Transmission 380 – 780 nm > 70 % ⁽²⁾

Material Data

Dimensions	Width	1000 mm (customizable)
	Thickness	0.125 ± 0.02 mm
	Length	Seamless up to 550 meters

Average Linear Thermal Expansion Coefficient Range of 60 to 80 °C	Machine Direction	22 µm/(m*K) ⁽³⁾
	Traverse Direction	16 µm/(m*K) ⁽³⁾

Heat Shrinkage 168 h, 90 °C < 1 %

UV Stability Color change after 0.34 kWh/m ² @ 340 nm Irradiated on structured side of product 60 °C Black Panel Temp. during illumination DIN EN ISO 4892-1 Okt16 DIN EN ISO 4892-3 Okt16	Δa	< 0.5
	Δb	< 1.0
	ΔYi	< 2.0

Bend Radius DIN EN ISO 1519 DE Aging by climate cycle test (- 40 to + 80 °C, 30 to 80 % r.H.)	Before aging	< 20 mm
	After aging	< 20 mm

Temperature Range - 40 °C to + 80 °C

Glow Wire Flammability IEC 60695-2-11 650 °C

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Product Information

- Infinite lengths – Design for any size, without a single seam
- Rollable, flexible diffuser film solution
- Smoother appearance – Structures invisible to the eye for highest aesthetics
- Customizable in length, width and thickness to meet your individual needs
- High quality lamination on glass, PMMA or PC possible

Notes



Sustainability

Biomass Balance Approach:
Reduce CO₂ emissions and save fossil resources



Application

Structured side facing away from light source



Cutting

Material can be cut to width and length by scissor or knife

Contact Information

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