

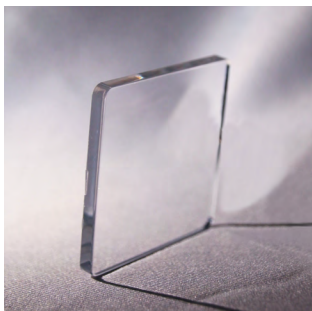


## Light Shaping Diffuser®

Silicone Substrate

### Key Advantages of Luminit's LSDs® on Silicone

Luminit's Silicone-Based Light Shaping Diffusers® (LSDs®) offer new flexibility and performance benefits to optical design. Silicone's inherent stability makes it ideal for demanding environments where conventional materials fall short. Our LSDs® on silicone substrates can withstand extreme temperatures, UV exposure, humidity, and physical impact, ensuring long-lasting performance in outdoor, industrial, and marine settings. Silicone's resilience against UV radiation, impact, and environmental degradation means that Luminit LSDs® maintain high performance in challenging conditions, extending



the lifespan of lighting systems. The Silicone material system enables designers and engineers to use LSD®s in high heat, high optical power, and high UV environments with improved durability.

#### Dow Silastic MS-1002

Transmission % (3.2mm @380nm)	89
Transmission % (3.2mm @450nm)	91
Transmission % (3.2mm @760nm)	94
Shore A Hardness	72
Refractive Index	1.41
Operating Temperature (C)	200-250
Mold Negative Draft Angle (Deg)	<0 (-5 to -10)

Aging	Silicone (1)	PC (2)	PMMA (3)
Initial			
Sunight UV			
Heat 125°C			
Heat 150°C			NA
85°C/85%RH			

picture credit Steinbrecher and Shearer Dow Presentation October 13 2020 LEDS Magazine

### Technical Specifications

Substrate Material	Optical-Grade Silicone
Light Transmission	Up to 94% depending on wavelength
Haze/Scatter per 3mm	1%
UV Stability	Excellent, no yellowing with exposure
Temperature Range	+200°C to +250°C
Waterproofing	Inherently waterproof/corrosion-resistant
Environmental Resistance	Withstands humidity, impact, abrasion
Applications	Automotive, Lighting, Medical, Industrial

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