

# Additional DOWSIL™ developmental product options for displays

## DOWSIL™ UV-Curable Liquid Silicone Pressure Sensitive Adhesive (developmental)

### Physical properties

This developmental silicone PSA from Dow is a one-part UV-curable solventless adhesive that offers tunable peel adhesion. It is optically stable and has low yellowness index measurements at high temperatures.

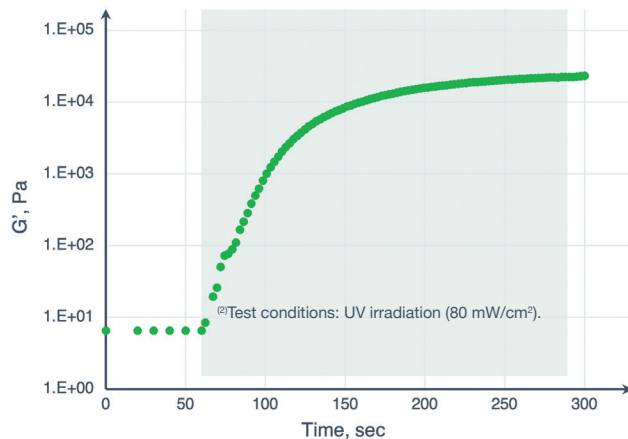
Property	Value
Type	1-part adhesive
Storage condition	Room temperature
Shelf life	12 months
Viscosity (25°C)	5,000-20,000 mPa·s
Cure condition	Hg or LED365 lamp; 3-8 J/cm <sup>2</sup>
Refractive index	1.42
Transmittance (0.2 mmt)	99%
Haze (0.2 mmt)	0.2
Peel adhesion (50 μm thickness) <sup>(1)</sup>	50-1,000 gf/inch
Ball tack	6-9
Storage modulus (G') @ 25°C	1.0 x 10 <sup>4</sup> Pa

Specification writers: These values are not intended for use in preparing specifications. Please contact your local Dow sales office before writing specifications on this product.

<sup>(1)</sup>Peel adhesion to SUS304 plate.

### Cure profile<sup>(2)</sup>

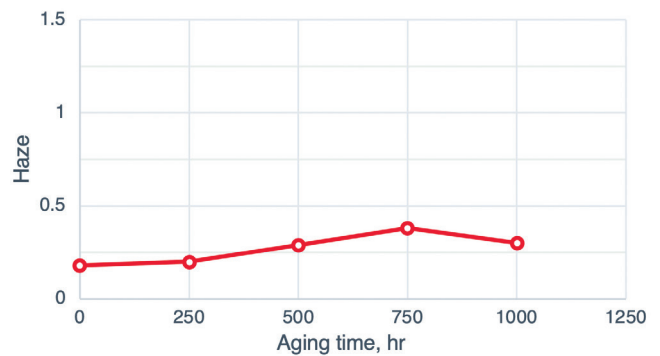
DOWSIL™ UV-Curable Liquid Silicone Pressure Sensitive Adhesive (developmental) is curable with UV365 irradiation.



### Reliability performance

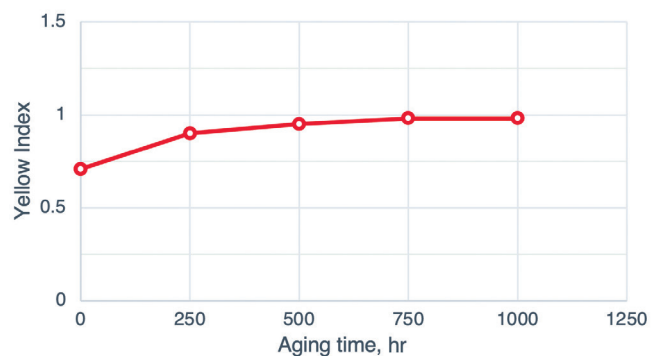
This developmental PSA offers optical reliability. It also is durable and maintains low levels of haze and yellowing under 100°C aging.

#### Haze testing<sup>(3)</sup>



<sup>(3)</sup>Test conditions: 0.20 mmt specimen, 100°C aging.

#### Yellowing index testing<sup>(4)</sup>



<sup>(4)</sup>Test conditions: 0.20 mmt specimen, 100°C aging.

# DOWSIL™ UV-Heat-Curable Silicone Hot-Melt Film (Low-Temp Cure) (developmental)

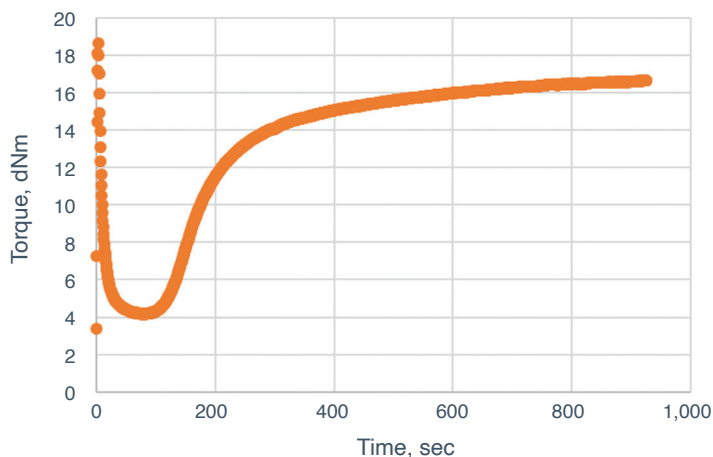
## Physical properties

This developmental silicone hot-melt film from Dow offers a low-temperature cure and high elongation.

Property	Value
Type	2-part film (base/catalyst = 100/5)
Storage condition	0-5°C, light-shielded
Viscosity (25°C)	Base: 5,000 mPa.s Catalyst: <1 mPa.s
Cure condition	UV 4 J/cm <sup>2</sup> @ 365 nm + 75°C, 2 hr
Refractive index	1.42
Transmittance (150 μmt)	99.7%
B* (150 μmt)	0.12
Tensile strength (1 mmt) @ 25°C, 500 mm/min	2.8 MPa
Elongation (1 mmt) @ 25°C, 500 mm/min	1,050%
Uncured: Storage modulus (G') @ 25°C	13 MPa
Cured: Storage modulus (G') @ 25°C	38 MPa

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## Cure profile at 75°C<sup>(5)</sup>



<sup>(5)</sup>Test conditions: UV 4 J/cm<sup>2</sup> @ 365 nm + cure @ 75°C.

## Learn more

We offer more than just an industry-leading portfolio of advanced silicone-based materials. As your dedicated innovation leader, we bring process and application experience, a network of technical specialists, a reliable global supply base, and world-class customer service.

To find out how we can support your applications or to learn more about developmental DOWSIL™ UV-Curable Liquid Silicone Pressure Sensitive Adhesive or developmental DOWSIL™ UV-Heat-Curable Silicone Hot-Melt Film (Low-Temp Cure), contact us or visit [dow.com/displays](http://dow.com/displays) or [dow.com/electronics](http://dow.com/electronics).



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