



## **Luminary Optics, LLC Optical Bonding Standard for Altitude Formula**

### Types of Bonding:

- Gasket and Fill: Luminary's Standard. Cover glass is attached to display's bezel with a gasket. Cavity is injected with liquid modified polydimethylsiloxane bonding formula under low pressure, after which curing occurs at ambient temperature.
- Gasket-less direct bonding, also referred to as "Puddle Pour": Glass or other optical substrates are bonded together by application of liquid bonding formula only, allowing for a bonding layer ("bondline") of less than 0.010" thickness.

### Materials Used:

- Proprietary mixture of silicone and additional performance-improving agents.

### Properties:

- Display can maintain a high contrast ratio even in bright ambient conditions
- Specular reflection reduced to less than 1.0%
- Can easily be de-bonded
- Maintains display luminance uniformity
- Provides increased durability, particularly by increasing impact resistance through support of optical cover glass or touchscreen
- Eliminates water condensation and contamination under the cover glass or touch screen
- UV stable – never yellows
- Bonding formula is highly inert – characteristics do not change over decades after display is bonded

### Standards Met:

- High adhesion passes Military Rated 30,000' rapid decompression test.

Luminary Optics Optical Bonding Standard Official Document  
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