

# SECURE 8110 series

# SECURE 8120 series

**Photopolymer** introduces **SECURE**, a comprehensive line of advanced ultraviolet and visible light cure adhesives utilizing the latest resins and additives. **SECURE 8110** and **SECURE 8120** series are formulated for clear bonding of optical components such as lens, prism, filter, fiber optics, etc. **SECURE 8110** and **SECURE 8120** series ensure rapid curing and excellent optical transparency. **SECURE 8110** series offer low stress and high flexibility bonding while **SECURE 8120** series offer high strength and high rigidity. **SECURE 8110** and **SECURE 8120** series are best suited for optical, optoelectronics and optomechanical assemblies prevalent used in LCD projector, digital camera, fiber optic waveguides, field survey equipment, laboratory equipment and military vision scopes.

## Key Characteristics & Features

### SECURE 8110 series

### SECURE 8120 series

**CURING METHOD:** Ultraviolet light curing

**KEY SUBSTRATE:** Glass, quartz, crystal

**SECONDARY SUBSTRATE:** Metals, ceramics & plastics

#### OPTICAL CLARITY

- Provides excellent optical clarity for optimum image & data transmission
- Provides excellent optical stability exposure to ultraviolet & heat
- Prevent yellowing during ultraviolet curing or during high temperature curing

#### RAPID CURING

- Instant fixturing in seconds with full bond strength
- Faster assembly or alignment with rapid ultraviolet curing

#### HIGH FLEXIBILITY

- Permit stress & strain relief
- Provide shock & repeat clamping
- Protect against dynamic loading & stress from shock, drop, impact & vibration

#### HIGH RIGIDITY

- Possess high modulus & low elongation
- Permit accurate assembly & alignment
- Protect against static loading & stress

#### LOW STRESS

- Possess low modulus & low shrinkage
- Permit bonding of wide surface area
- Prevent stress buildup, cracking & delamination

#### HIGH STRENGTH

- Permit large & heavy assembly
- Ensure structural integrity during further assembly or during service

## Typical Applications

- Bonding, sealing & coating of glass to glass & other substrates such as crystal, quartz, metals, ceramics & some plastics
- Bonding of optical components such as lens, prisms, filter optics, beam splitters, windows, filters, etc
- Bonding & coating of optomechanical assemblies components onto metals & plastics mounting, brass, brackets, lens holders, guides, etc
- Bonding of optical assemblies for field survey & measurement equipment, laboratory test & inspection equipment, LCD projector, digital cameras, military vision scopes & goggles, etc
- Bonding of lighting & lamp assemblies for consumer, commercial & automotive industries
- Bonding of fiber optics to connectors, sleeves, ferrules & guide plates
- Laminating & bonding of glass sheets & panels for safety, scratch-proof & thick section glass

## Ordering Information

### Productline NUMBER

**Datasheet** Technical & Material Safety Datasheets are available on request

**Grade** 80-8110, 80-8111, 80-8112, 80-8113, 80-8120, 80-8121, 80-8122, 80-8123

**Package Size** Available in 1 liter syringe, 30ml syringe, 20ml Dottie & 1 liter bottles. Other packaging & size available on request

**Variant** Additional features such as visible light cure, heat cure, high refractive index & low viscosity are available on request.

**MSDS** Information on restricted Hazardous substances are available on request

## Selection & Classification

### Self leveling liquid, 700 - 900 cP



### SECURE 50-0110



### SECURE 50-0120



### liquid, 2.000 - 5.000 cP

### SECURE 50-0115



### SECURE 50-0125



### Viscous liquid, 10.000 - 15.000 cP Thix

### SECURE 50-0113



### SECURE 50-0123



### Semi-paste, 22.000 - 25.000 cP Thix

### SECURE 50-0114



### SECURE 50-0124



## Typical Material Properties

	SECURE 0110 series	SECURE 0120 series
Base	UVI6974	UVI6974
Appearance	Clear	Clear
Curing	2.000 mJ / cm <sup>2</sup> of UVA	2.000 mJ / cm <sup>2</sup> of UVA
Refractive Index	1,47	1,47
Transmittance @ 1.0mm film, %		
a) Visible Light @ 400 - 700nm	>80	>80
b) Near Infra Red Light @ 700 - 1000nm	>85	>85
c) Far Infra Red Light @ 1000 - 1500nm	>80	>80
Hardness, Shore D	60	75
Elongation @ Break, %	55	20
Shrinkage, %	<2,0	<1,0
Tensile Strength, MPa (PSI)	20,7 (3.000)	24,1 (3.500)
Modulus, MPa (PSI)	588 (85.000)	807,4 (120.000)
Shear Strength, (Glass/Metal), MPa (PSI)	5,0 (800)	6,9 (1.000)
Service Temperature, °C	-40 to 130	-40 to 130