

SECURE 8170 series

Photopolymer introduces **viscosity** - a comprehensive line of advanced ultraviolet and visible light cure adhesives using the latest resins and additives. **SECURE 8170 series** are formulated for structural bonding of various substrates such as metals, glass, ceramics and plastics used for product and mechanical assemblies. **SECURE 8170 series** cure with excellent bonding strength on metals when exposed to ultraviolet light or heat. **SECURE 8170 series** provide high hardness and high rigidity. **SECURE 8170 series** are best suited for bonding of metallic structures such as housings, frames, baseplates, etc used in mechanical assemblies. **SECURE 8170 series** are also suited for precise locating and securing of components.

Key Characteristics & Features

SECURE 8170 series

CURING METHOD: Ultraviolet light & heat curing

KEY SUBSTRATE: Metals

SECONDARY SUBSTRATE: Glass, ceramics & plastics

VERSATILE CURING

- In-house options for assembly designs & production sequence
- Faster assembly or alignment with rapid ultraviolet curing
- Adhesives in shaded area can be heat cure to improve bonding strength

EXCELLENT STRENGTH

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

EXCELLENT RIGIDITY

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

Typical Applications

- Bonding of metals such as steel, aluminum, stainless steel, copper, alloys, plated metals, ferrites, etc to metals & other substrates such as glass, ceramics & some plastics
- Bonding of metallic structures such as housings, frames, baseplates, chassis, sub-assemblies, & fixtures where parts of the bonding area are shielded from ultraviolet exposure
- Rapid fixturing & tooling of components after alignment or partial assembly
- Mounting of mechanical assemblies

Ordering Information

Productline: SECURE

Datasheet: Technical & Material Safety Datasheets are available on request

Grade: 88-8170, 88-8171, 88-8172, 88-8173

Packaging Size: Available in 10ml syringe, 30ml syringe, 30ml cartridge & 1 liter bottle. Other packaging & size available on request

Notes: Additional features such as visible light cure, heat cure & low viscosity are available on request

Info: Information on restricted hazardous substances are available on request

Selection & Classification

Self-leveling liquid, 800 - 300 cP

SECURE 33-8170



Liquid, 2.000 - 3.000 cP

SECURE 33-8171



Viscous liquid, 10.700 - 14.700 cP Thix

SECURE 33-8172



Semi-paste, 27.800 - 31.800 cP Thix

SECURE 33-8173



Typical Material Properties

SECURE 8170 series

Base	Urethane
Appearance	Clear / amber & fluorescent
Curing	2.000 mJ / cm ² of UV-A or 105°C for 10 minutes
Refractive Index	1,47
Hardness, Shore D	80
Elongation @ break, %	18
Shrinkage, %	-11,0
Tensile Strength, MPa (PSI)	27,4 (4.000)
Modulus, MPa (PSI)	1.024,2 (148.000)
Shear Strength (Steel/Steel), MPa (PSI)	8,3 (1.200)
Service Temperature, °C	-40 to 180