

# TECHNICAL BULLETIN

## FLASHBOND™ UV-2910DC

### UV/LED CURE EPOXY ADHESIVE

**FLASHBOND™ UV-2910DC** is an innovative light cure epoxy adhesive. It has unique features that allow for fast processing and fixturing of parts. Once the adhesive has been activated with UV light, it has set open time that allows for assembly of parts. The product continues to cure at room temperature or rapidly cures when exposed to low temperature heat. The cured product exhibits low shrinkage and excellent thermal, water and chemical resistance. Typical applications include bonding of optics, connectors, fibers, lenses, prisms and other electronic components where low shrinkage and low outgassing are required.

#### TYPICAL HANDLING PROPERTIES:

Chemical Type	Cationic Epoxy
Viscosity at 25°C, cps	5000-8000
Specific Gravity, 25°C	1.12

#### **Recommended Curing Conditions:**

Pre-activated @ 100-120 mW/cm<sup>2</sup>, measured @ 405 nm or 365 nm for 4-6 seconds resulting in an open time of 45-60 seconds. Full cure will follow in 24 hrs @ 25°C or 30 minutes @ 60°C.

For full cure (no open time), increase cure time to 20-30 seconds or increase intensity to 250 mW/cm<sup>2</sup> and cure for 10 seconds.

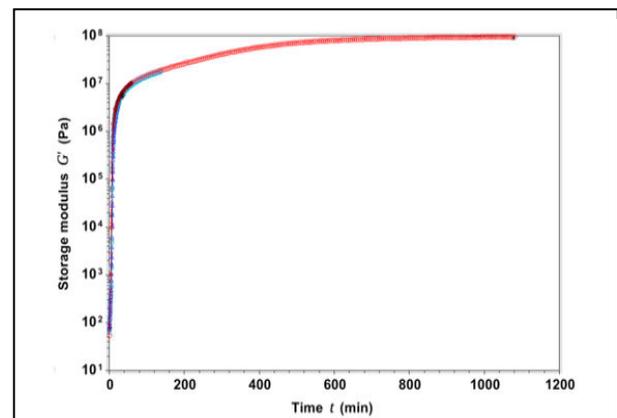
#### TYPICAL CURED PROPERTIES AFTER RECOMMENDED CURE:

(Tested @ 25°C unless otherwise indicated)

Color	Translucent
Hardness, Shore D	75
Water Absorption (24 hr @ RT), %	0.15
Linear Shrinkage, %	0.8
Elongation at break, %	7.6
Tensile Modulus	150,000
Tensile Strength, psi	2500
Service Temperature range, °C	-55 to 150
Glass Transition Temperature, °C	45
Coefficient of Linear Thermal Expansion, 10 <sup>-6</sup> /°C	
Below Tg	59
Above Tg	>120
Dielectric Strength, Volts/mil	420
Dielectric Constant at 1 kHz	4.14
Dissipation Factor at 1 kHz	0.02
Volume Resistivity (ohm-cm)	1.0x10 <sup>14</sup>

#### **Strength Testing**

Strength build up over time and tested at 25°C



#### **Substrate Adhesion**

Preactivated at 100 mW/cm<sup>2</sup> for 5 seconds at 405nm

Substrate	Strength (psi)
Aluminum (abraded)	2500
Steel (abraded)	2250
G10 Epoxy Glass (IPA clean)	1800
PVC (IPA clean)	2750
ABS (IPA clean)	700
Polycarbonate (IPA clean)	800