

ULTRA LIGHT-WELD® 9-20269-GEL

WIRE AND COMPONENT TACKING

INTRODUCTION

Dymax Ultra Light-Weld adhesives cure upon exposure to either UV, or high intensity visible light, in seconds. Their instant cure capability and solvent free, 100% solids composition increase productivity, lower assembly costs, and enhance worker safety. Dymax offers a complete line of UV and visible curing lamps that are matched to the adhesive's cure characteristics and a wide range of application requirements.

DESCRIPTION

Ultra Light-Weld 9-20269-Gel photocurable adhesive is designed for fast tacking of coils, LCD's, wires and other components onto printed circuit boards (PCBs). A solvent-free, visible and UV curing adhesive, 9-20269-Gel dispenses easily and cures "on demand" for precise bonding and placement of components. Excellent adhesion to common PCB substrates, and shock absorbing capability makes it an excellent choice for a variety of electronic bonding and tacking applications.

SPECIAL FEATURES	BENEFITS
Visible Light or UV Cure Capability	Fastest cures with longwave UV lamps (365 nm) Visible light cures for UV sensitive applications (400 nm)
Thixotropic Gel Viscosity	Precise, easy dispensing, no drip, mess or stringing
Adhesion/Toughness	Flexible, resilient bonds to common electronic grade materials of construction

UNCURED PROPERTIES

Solvent Content	None - 100% reactive solids	
Chemical Class	Urethane (Meth) Acrylate	
Appearance	Clear Gel	
Solubility	Alcohols/Chlorinated Solvents/Ketones	
Toxicity	Low	
Flash Point	>93°C (200°F)	
Viscosity (2 rpm)	200,000 cP (nominal)	ASTM D-2556
(20 rpm)	25,000 cP (nominal)	ASTM D-2556

CURED PROPERTIES

PHYSICAL

Durometer Hardness	D65	ASTM D-2240
Elongation at Break	20%	ASTM D-638
Tensile at Break	2,600 psi	ASTM D-638
Young's Modulus	100,000 psi	ASTM D-638
Water Absorption (24 hr)	5.0%	ASTM D-570
Boiling Water Absorption (2 hr)	5.0%	ASTM D-570

TYPICAL LIGHT CURE DATA

Lamp	PC-3	3010-EC
Type of Light	UV	UV
Intensity (mW/cm ²)	1000 @ 365 nm	1800 @ 365 nm
Wavelength (nm) Working Range	300-500	300-500
Cure Speed (sec)		
Between Glass	<1	<<1
1/8" Bead	1-3	1

Surface Cure	2	1
Cure Depth in 1 Minute (inch)	0.25	0.30

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9-20269-GEL, 06/99

DISPENSING AND HANDLING ADHESIVE

Ultra Light-Weld 9-20269-Gel is packaged in a variety of containers. It may be dispensed with a variety of automatic bench-top syringe applicators or other equipment as required. For specific technical recommendations relating to dispensing and curing systems, call Dymax Technical Service at (860) 482-1010.

Repeated or continuous direct skin contact should be avoided. The use of barrier hand cream and plastic gloves are recommended. Do not wear absorbent gloves. Do not wear jewelry. Adhesive may be removed with hand soap and water. Avoid eye contact. Wipe excess wet adhesive off parts with paper towels and remove cured residue with chlorinated solvents, Freon, methanol or ethanol. See CAUTION below.

STORAGE AND SHELF LIFE

Do not expose to any UV or visible light source or sunlight. Ultra Light-Weld 9-20269-Gel has a minimum one year shelf life when stored below 32°C (90°F) out of sunlight in original, unopened container. Material can polymerize upon prolonged exposure to ambient light. Replace lid immediately after pouring. Keep covered at all other times.

CAUTION

For industrial use only. Avoid breathing vapors. Avoid contact with eyes and clothing. In case of skin contact, immediately flush with water for at least 15 minutes; for eyes, get medical attention. Wash clothing before reuse. Keep out of reach of children. Do not take internally. If swallowed, vomiting should be induced at once and a physician called. For specific information, refer to the product Material Safety Data Sheet before use.

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