

MULTI-CURE[®] 625 SERIES

GENERAL PURPOSE BONDING ADHESIVE

DESCRIPTION

Multi-Cure 625 Series are general purpose adhesives for use in bonding, potting and sealing applications. Bonds exhibit both toughness and flexibility while withstanding stress caused by different coefficients of expansion present when bonding dissimilar substrates. Excellent bonds are formed to a wide variety of substrates including plated metal, many thermoset plastics, glass and ceramics.

TYPICAL UNCURED PROPERTIES

Solvent Content	None - 100% Solids	
Chemical Class	Urethane Oligomer/(Meth)Acrylate Monomer Blends	
Appearance	Straw to Amber	
Solubility	Isopropyl Alcohol, Chlorinated Solvents	
Toxicity	Low	
Flash Point	>200°F (93°C)	
Viscosity (20 rpm)	625 5,000 cP (nominal)	ASTM D-2556
	625-SVO1 10,000 cP (nominal)	
	625-T 25,000 cP (nominal)	
	625-VT 32,000 cP (nominal)	
	625-Gel Non-flowing, Thixotropic Gel	

TYPICAL CURED PROPERTIES

Durometer Hardness	D45	ASTM D-2240
Tensile at Break	1,900 psi	ASTM D-638
Elongation at Break	180%	ASTM D-638
Modulus of Elasticity	2,600 psi	ASTM D-638
Water Absorption	1.2%	ASTM D-570
Thermal Limit (brittle/degrades)	-55 to +150°C (-65/300°F)	DSTM D-200*
Linear Coefficient of Thermal Expansion, CTE	120x10 ⁻⁶ in/in/°C	ASTM D-696
Side Impact	20 in-lb	Fisher Body
Tensile Shear (Steel)	2,500 psi	ASTM D-1002
Moisture Resistance	85% Strength Retained	ASTM D-570
Thermal Shock, 10 Cycles (-15°/300°F)	100% Strength Retained	DSTM D-201*
Dielectric Strength kv/mm	13.1 kV/mm	JISK 6911
Surface Resistivity	0.77 x 10 ¹² Ω	ASTM D-1304
Volume Resistivity	3 x 10 ¹² Ω-cm	ASTM D-1304

*DSTM refers to Dymax Standard Test Method

CURE DATA - Using 365 nanometer UV light:

	Cure Time (seconds)	Intensity mW/cm ²	Dymax Light-Welder [®] Lamp
Fixture between glass slides	4	30	2000-EC
Depth of cure (0.125 inch)	15	225	5000-EC
Tack-free surface	25	225	5000-EC
Max Cured Film Thickness			
Ultraviolet Cure	0.125"		
Activator Cure	0.020"		

HEAT CURE FOLLOWING UV EXPOSURE

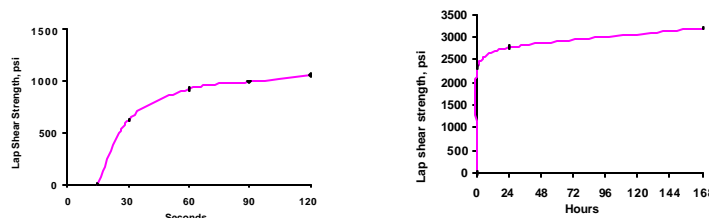
Heat is used as a secondary cure mechanism where all adhesive cannot be cured with UV light or activator. UV cure MUST be done prior to heat cure. The following heat cure schedules may be used:

110°C (225°F)	60 minutes
120°C (250°F)	30 minutes
150°C (300°F)	15 minutes

ACTIVATOR CURE

1. Apply a thin film of Activator 535-A over one of the surfaces to be bonded. Allow a few seconds for the solvent to evaporate. Surface will have an oily appearance. (See "Guidelines for Activator Curing" for complete instructions for all activators.)
2. Apply only a single drop or bead of adhesive to the center of the mating surface. DO NOT SPREAD OVER THE BOND SURFACE.
3. Assemble parts and clamp or hold immobilized until fixture occurs (30-60 seconds). Do not stress bonds until sufficient strength has been achieved. (This may be up to several minutes depending on requirements.)
4. All adhesive should be contained within the joint. Wet/tacky adhesive present outside of the joint can be cured with heat or cleaned away with recommended solvents.

BOND STRENGTH DEVELOPMENT USING 501-E ACTIVATOR



DISPENSING AND HANDLING ADHESIVE

Multi-Cure products are available packaged in 30 mL, 1/4 liter, liter and bulk packaging. They may be dispensed with a variety of automatic benchtop syringe applicators or other equipment as required. For questions relating to dispensing and curing systems, call Technical Service at (860) 482-1010.

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

For specific information on how to use activator curing adhesives, please refer to Application Bulletin Lit # 22.

STORAGE AND SHELF LIFE

Store material in cool, dark place when not in use. Do not expose to UV light source or sunlight. Product has a one year shelf life when stored below 90°F out of sunlight and in the original, unopened containers.

CAUTION

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For industrial use only. Avoid breathing vapors. Avoid contact with eyes and clothing. In case of 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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