

Guidelines for Activator Curing

DYMAX and Multi-Cure[®] Engineering Adhesives

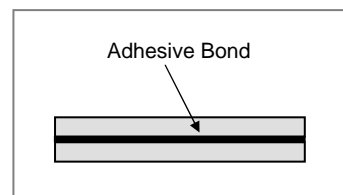
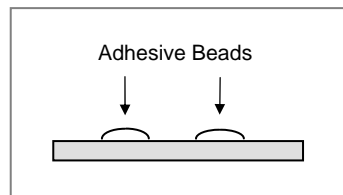
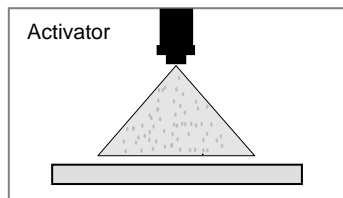
By following three simple steps, DYMAX 800 Series and *Multi-Cure* 600 Series engineering adhesives produce structural strength bonds on most surfaces without the need for surface preparation. Among the materials recommended for bonding are:

Metals ■ Hardwoods ■ Composites ■ Glass ■ Ceramics

DYMAX 800 Series & *Multi-Cure* 600 Series Engineering Adhesives Technical Information

When Using Wipe-On[®] Activator 535-A

1. **Apply** the activator over one of the surfaces to be bonded. Allow 20-30 seconds for the solvent to evaporate. The treated surface will appear "slightly oily".
2. **Apply a drop** or bead of adhesive to the center of the mating surface. **Do not spread adhesive over the bonding surface.**
3. **Press** the parts together firmly and secure for the required fixturing time. Adhesive should cover bond area. Wipe away excess.



When Using Wipe-On[®] Activator 501-E

1. **Coat** the mating surface with **a very thin layer of activator**. Excess activator creates weak bonds. Use in a ratio of 15-30 parts adhesive to one part activator.
2. **Apply a drop** or bead of adhesive to the center of the mating surface. **Do not spread adhesive over the bonding surface.**
3. **Press** the parts together firmly and secure for the required fixturing time. Adhesive should cover bond area. Wipe away excess.

Technical considerations for optimum use of DYMAX 800 Series and Multi-Cure[®] 600 Series adhesives include the following:

- Match the product to the substrate.** Consult the DYMAX product selector guide and individual DYMAX technical data sheets. Always test using production substrates before choosing or specifying a particular product grade.
- Bond to clean surfaces.** Most substrates require little, if any, surface preparation. Adhesion and bond durability are frequently enhanced by clean, mechanically roughened surfaces. Grease, wax, and some mold release agents are barriers against adhesion.
- Use the proper amount of activator.** Activator must fully mix with DYMAX Series 800 and *Multi-Cure* Series 600 adhesives to obtain the maximum bond strength. Recommended ratios of adhesive to activator are very broad from a minimum 15 to 30 parts adhesive with one part activator.
- Use the minimum amount of adhesive** to completely fill the joint. Apply just enough adhesive so that a ring of liquid becomes visible when the parts are pressed together. The "fillet" should cure if the proper ratio of adhesive to activator has been used.
- Apply the adhesive as a bead(s) or drop(s).** Adhesive applied as a drop, or bead, squeezes from the center to the edges of the bonding surfaces. This technique assures maximum contact of adhesive and activator over the entire bond area. Round or unusually shaped parts should be assembled with a twisting motion, if possible, to help achieve maximum contact between activator and adhesive area.
- Allow adequate cure time before stressing** the joint. Movement of the bond line before handling strength is achieved will result in lower strength. Consult the appropriate technical data sheet for laboratory determined fixture times. Leaving parts undisturbed for twice the minimum fixture time is recommended.
- Store activator in closed containers.** Wipe-On activators will slowly react with air, causing an increase in fixture rate. Excess loss of solvent from Wipe-On Activator 535-A may lower its effectiveness. Use only non-porous metal for activator storage and dispensing reservoirs. Nitrogen back fill of opened containers will increase activator life.
- Consult the DYMAX Applications Engineering** for recommendation and information relative to supplemental heat curing of DYMAX 800 and *Multi-Cure* 600 Series adhesives.

DYMAX 846-GEL* TIME/STRENGTH RELATIONSHIPS

<u>Time</u>	<u>Bond Strength</u>
1 Minute	100 psi
2 Minutes	500 psi
10 Minutes	1,500 psi
72 Hours	2,500 psi
20 Seconds	Handling Strength

**Using cleaned cold rolled steel, 2 mil gap, per ASTM D-1002; 77°F*

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