3M Application Profile

Market: Appliance

Application Description: Used to rigidize large components on a printed circuit board of a dryer.





Application Method

 $3M^{{}^{\rm T\!M}}$ Scotch-Weld^{{}^{\rm T\!M}} Applicator and $3M^{{}^{\rm T\!M}}$ Scotch-Weld^{{}^{\rm T\!M}} Hot Melt Applicator

Key Application Requirements

Vibration control, quick and easy applications.

Product Replaced

RTV silicones.

Benefits/Advantages To Customer

Rigidizes: Helps eliminate shock and vibration that could cause component solder joint failure, reducing cost due to damaged components and circuit boards.

Cure time: Fast set time helps lower cost of processing and increases convenience.

PRODUCT

3M[™] Scotch-Weld[™] Hot Melt Adhesives 3M[™] Scotch-Weld[™] Epoxy Adhesives

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Process

Electronic manufactures fabricate printed circuit boards, then ship them to an appliance component manufacturer for installation in the control system. Finished control systems are shipped to the appliance manufacturer for installation on the assembly line.

Large axial leaded capacitors or other components provide rigidity. A bead of adhesive on each interface helps provide shock and vibration resistance while relieving stress that can cause component failure from soldered leads. Components weighing more than ¹/₄ oz. per axial lead are often rigidized, in accordance with IPC-CM-770B guidelines. Such heavy components are often used for assembler of power supply and power amplifier boards.

Stabilizing Loose Components



Stabilizing loose components helps prevent loosening of solder joints, provides faster set, lower cost and is more convenient to use than many RTV silicones, which are often used in this application.

Product

3M[™] Scotch-Weld[™] Hot Melt Adhesive 3779 3M[™] Scotch-Weld[™] Hot Melt Adhesive 3748 3M[™] Scotch-Weld[™] Hot Melt Adhesive 3748VO Meets UL 94 VO requirements

3M[™] Scotch-Weld[™] Epoxy Adhesive DP-190 3M[™] Scotch-Weld[™] Epoxy Adhesive DP-110 3M[™] Scotch-Weld[™] Epoxy Adhesive DP-105

Advantages

High heat resistance Non-corrosive to copper

Long work-life, flexible, gray and translucent Excellent peel strength, shock and impact resistant Very flexible

Key Decision Makers

Manufacturing and Production Managers

SIC Codes

3633 – Household Laundry Appliances 3639 - Household Appliances

Fixing and Vibration Protection



Fixing and vibration protection helps reduce internal component damage due to vibration and shock.

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For Additional Information	To request additional product information or to arrange for sales assistance, call 1-800-362-3550. Address correspondence to: 3M Industrial Business Customer Response Center, Building 21-1W-10, 900 Bush Avenue, St. Paul, MN 55106. Our fax number is 651-733-9175. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.
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