



# Structural Bonding Using a Non-Chromated, Waterbased Primer

## SOLUTION PROFILE - 3M™ Scotch-Weld™ Structural Adhesive Primer EW-5000 AS

- Process/Shop:** Metal bonding during the manufacture, maintenance, or repair of aircraft parts.
- Key Issues:** The need for a non-chromated, structural bonding primer, which has comparable performance and handling to traditional solvent-based primer.
- Application Attribute:** 3M™ Scotch-Weld™ Structural Adhesive Primer EW-5000 AS is a water-borne, heat-curing primer that has a non-chromated, corrosion-inhibiting package to provide protection against corrosive environments. This sprayable, brushable primer is used for structural metal bonding applications and can be used with 250°F and 350°F cure epoxy film adhesives.



PRODUCT SOLUTION	Product	3M Product Number (U.S.)	UPC
	1 Quart (12 per case)	87-2500-0100-2	021200 74232 3
	1 Gallon Pail	87-2500-0102-8	048011 53099 4
	5 Gallon Pail	87-2500-0101-0	021200 74233 0

KEY BENEFITS	
	<b>OSHA Compliance</b> - Scotch-Weld EW-5000 AS primer can help you comply with OSHA 29 CFR 1910.1026 Chrome Standard (February 28, 2006) reducing PEL (personal exposure limit) from 52.0 to 5.0 micrograms of Cr(VI) per cubic meter of air ( $\mu\text{g}/\text{m}^3$ ) for most US industries. For the US aerospace painting industry, (includes priming) limit was reduced to 25 $\mu\text{g}/\text{m}^3$ .
	<b>EPA Compliance</b> - Scotch-Weld EW-5000 AS primer can help you comply with EPA NESHAP requiring reductions in environmental chromate emissions for air emission compliance.
	<b>Product Versatility</b> - Can be utilized in both 250°F and 350°F curing applications.
	<b>Shop Handling</b> - Can be applied using existing application methods including brushing and spraying using HVLP spray guns as well as conventional spray guns. The product is designed to be compatible with conventional spray equipment. Can be sprayed in consecutive passes without flash off between passes. Product handling without risk of rubbing off primer prior to bake.
	<b>Minimizes Pollution in the Work Environment</b> - Due to the formulation of Scotch-Weld EW-5000 AS primer, it does not flake off prior to the bake cycle, providing a cleaner work environment.
	Less than 5 minutes to flash off into an integrated non-tacky film after final pass has been applied.

ADVANTAGES	
	Will air dry in less than 30 minutes before primer can be force dried.
	Thickness can be accurately measured prior to bake with a thickness gauge.
	Improved coverage due to greater solid content.
	Compatible with automated spray equipment.
	Spray to target thickness (0.18 to 0.25 mil) in 2-3 passes (1-1.5 box coats).

## 3M STRUCTURAL BONDING USING A NON-CHROMATED, WATERBASED PRIMER

RELATED GOVERNMENT REGULATORY, INDUSTRY SPECIFICATIONS AND EXPERIENCE	
Boeing BMS 5-89 Boeing BMS 5-137	3M™ Scotch-Weld™ Structural Adhesive Primer EW-5000 AS is currently in qualification with Boeing BMS 5-89 and BMS 5-137 specifications. BMS 5-89 is a specification for 250°F cure primers. The corresponding film adhesive primer specification is BMS 5-101. BMS 5-137 is a specification for 350°F cure primers and film adhesives.
SCAQMD Rule 1124	South Coast Air Quality Management District (SCAQMD) Rule 1124 VOC limit at less than 250g per liter of water.
OSHA 29 CFR 1910.1026	Chrome Standard (February 28, 2006) reducing PEL (personal exposure limit) from 52.0 to 5.0 micrograms of Cr(VI) per cubic meter of air ( $\mu\text{g}/\text{m}^3$ ) for most US industries. For the US aerospace painting industry, (includes priming) limit was reduced to 25 $\mu\text{g}/\text{m}^3$ .

### For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-235-2376 or fax 1-800-435-3082 or 651-737-2171. For U.S. Military, call 1-866-556-5714 or fax 651-737-4380. If outside of the U.S., please contact your nearest 3M office.

### Important Notices

3M MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

### Limitation of Remedies and Liability

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### For Additional Product Safety and Health Info.

See Material Safety Data Sheet at [www.3M.com/msds](http://www.3M.com/msds).



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Printed in U.S.A.  
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60-9700-0114-9 (4/06)