

ECCOCOAT[®] C 110 SERIES

One Component, Non-Bleeding, Electrically Conductive Epoxy Coatings

Key Feature	Benefit
One component	No mixing, less waste, consistent processing
Excellent heat resistance	Usable in high temperature applications

Applications :

ECCOCOAT C 110 series feature fast cure in thin films after solvent evaporation and excellent electrical conductivity and heat resistance after cure. Applications include conductive coatings for tantalum capacitors.

Product Description :

ECCOCOAT C 110 series are one component, heat cured, non-bleeding, solvent-based, flexible, silver-filled epoxy coatings.

ECCOCOAT C 110-5 is a more conductive, higher surface tension version of ECCOCOAT C 110, whereas ECCOCOAT C 110-5-4 is a lower viscosity version.

Instructions For Use :

ECCOCOAT C 110 series can be applied by brushing, spraying, dipping or silk screening. If thickening occurs by solvent loss or if a lower viscosity is desired, thin with butyl cellosolve acetate. The solvent thinned compound should, however, be used promptly or periodically agitated to avoid filler settling.

Properties Of Material As Supplied :

Property	Test Method	Unit	Typical Value		
			ECCOCOAT C 110	ECCOCOAT C 110-5	ECCOCOAT C 110-5-4
Chemical Type			epoxy		
Appearance	TP-76W		silver		
Density	TP-13W	g/cm ³	2,88 - 2,94	2,88 - 2,94	1,93 - 1,99
Viscosity at 25°C	TP-10W		27 - 33	26 - 30	1,6 - 1,9
	10 rpm # 6	Pa.s			
	10 rpm # 4	Pa.s			
10 rpm # 2	Pa.s				
Silver Content As Supplied		% by weight	68 - 72	68 - 72	54 - 56

Cure Schedule :

After solvent evaporation, cure at any of the following schedules :

Note :

Thermal stability of the cured material improves with increasing cure temperature.

Temperature (°C)	Cure Time (Convection Oven)
150	60 min
180	30 min
200	15 min

Properties Of Material After Application :

Property	Test Method	Unit	Typical Value		
			ECCOCOAT C 110	ECCOCOAT C 110-5	ECCOCOAT C 110-5-4
Volume Resistivity	TP-67W at 25°C	Ohm.cm	4×10^{-4}	1×10^{-4}	9×10^{-5}
Service Temperature		°C	200	200	200

Storage And Handling :

Storage in a cool area is required to retard settling and maintain initial viscosity and flow properties. Store in a tightly closed container to avoid solvent evaporation.

Storage Temperature (°C)	Usable Shelf Life
0 to 8	12 months
18 to 25	2 months

Health & Safety :

It is recommended to consult the Emerson & Cuming product literature, including material safety data sheets, prior to using Emerson & Cuming products. These may be obtained from your local sales office.

Attention Specification Writers :

The technical information contained herein is generally consistent with the properties of the material and should not be used in the preparation of specifications, as it is intended for reference only. This technical information has been derived from one batch of material and may not exactly match the properties of each individual delivered batch. For assistance in preparing specifications, please contact your local Emerson & Cuming office for details. Please contact Emerson & Cuming Quality Assurance for test method details.

E02/04/2004-LM/GL/R&D

Europe

Nijverheidsstraat 7
B-2260 Westerlo
Belgium
% +(32)-(0) 14 57 56 11
Fax: +(32)-(0) 14 58 55 30

North America

45 Manning Road
Billerica, MA 01821
% 800-832-4929
% (978) 436-9700
Fax: (978) 436-9701

Asia-Pacific

100 Kaneda, Atsugi-shi
Kanagawa-ken, 243
Japan
% (81) 462-25-8815
Fax: (81) 462-22-1347

HENKEL CORPORATION MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE SUITABILITY OF THESE MATERIALS FOR USE IN IMPLANTATION IN THE HUMAN BODY, OR FOR ANY OTHER USE. These materials are not designed or manufactured for use in implantation in the human body. Henkel Corporation has not performed clinical testing of these materials for implantation. Henkel Corporation has neither sought, nor received, approval from the FDA for the use of these materials in implantation in the human body. No representative of ours has any authority to waive or change the foregoing provisions but, subject to such provisions, our engineers are available to assist purchasers in adapting our products to their needs and to the circumstances prevailing in their business. Nothing contained herein shall be construed to imply the non-existence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of this patent. We also expect purchasers to use our products in accordance with the guiding principles of the Chemical Manufacturers Association's Responsible Care® program.

Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.**

The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

Trademark usage

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

