

Primers

Dow Corning[®] 92-023 Primer

Adhesion enhancing, clear primer dispersed in heptane

FEATURES

- Improves inhibition resistance of addition cured silicones
- Diluted in heptane

BENEFITS

- Most metals, glass and ceramics

POTENTIAL USES

- Enhances bonding/adhesion of RTV and heat cure silicones to many:
- Metals
- Ceramics
- Glass
- Wood
- Masonry
- MasonryStructural plastics

APPLICATION METHODS

- Apply in a very light, even coat by:
- Wiping
- Dipping
- Spraying
- Excess material should be wiped off to avoid over-application
- Diluting by a factor of 2 to 4 with additional solvent may avoid excessive build-up

TYPICAL PROPERTIES

Specification Writers: Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Property	Unit	Value
Flash Point	°F	9
	°C	-13
Volatile Organic Content (OS Fluid non-exempt)	grams/liter	681
Shelf Life at 25°C	months	18

DESCRIPTION

Dow Corning® brand primers, prime coats and adhesion promoters are dilute solutions of silane coupling agents and other active ingredients. The surface reactive components typically must be applied in a very thin layer for best bonding. The solvents used in these products serve to deliver the active ingredients in a thin, uniform coating, enhance surface cleaning, and in some cases, aid in the penetration of the active ingredients into the bonding surface. Primers can be used to increase design flexibility, reduce total costs or increase performance reliability of electronic systems. They do this by enabling adhesion to lower-cost substrates or lower temperature processes which reduce energy budgets, among other possibilities.

HOW TO USE

These products should be applied in a very light, even coat by wiping, dipping or spraying. Excess material should be wiped off to avoid over-application, which generally appears as a white, chalky surface. When dip or spray coating, diluting by a factor of 2 to 4 with additional solvent may avoid excessive build-up. Apply additional cleaner/primer to the cloth every 3 to 5 minutes to ensure fresh material can react with the substrate.

PREPARING SURFACES

The active ingredients must thoroughly wet-out and coat the bonding surfaces. Mild abrasion, solvent cleaning, plasma, corona discharge and other pre-treatments have been used to clean and enhance surface reactivity to bonding. In general, light surface abrasion is recommended whenever possible, because it promotes good cleaning and increases the surface area for bonding. Surfaces should be cleaned and/or degreased with Dow Corning® brand OS Fluids, naphtha, mineral spirits, methyl ethyl ketone (MEK) or other suitable solvents that will remove oils and other contaminants that may be present. A final surface wipe with acetone or IPA may also be

helpful. Different cleaning techniques may give better results than others. Users should determine the best technique for their applications. For especially difficult-to-bond-to surfaces, it may be necessary to increase the surface reactivity by chemical etchants or oxidizers, or by exposing the surface to UV, corona, plasma or flame sources. Allow solvents to completely evaporate before applying the primer.

PROCESSING/CURING

These products require moisture in the air to cure, and are generally cured at room temperature and in a range of 20 to 90 percent relative humidity for 1 to 2 hours. Low humidity and/or low temperature conditions require longer cure times. Mild heat acceleration of the cure rate may be possible but temperatures above 60°C (140°F) are not recommended. During application, the carrier solvent typically evaporates off quickly, allowing the active ingredients to begin to react with atmospheric moisture and bonding surfaces. For optimal bonding, different cure times may be required for different temperature and humidity conditions. Users should determine the best cure schedule and conditions for their applications. The desired silicone elastomer should be applied after the primer, prime coat or adhesion promoter has fully cured.

PACKAGING

In general, Dow Corning primers, prime coats and adhesion promoters are supplied in nominal 1-gallon (3.8-L) and 13.5-fl oz (400-mL) or 1-pint (473-mL) containers, net volume. Not all products may be available in all packages and some additional packages may be available for certain products.

STORAGE AND SHELF LIFE

Shelf life is indicated by the "Use Before" date found on the product label. For best results, Dow Corning primers, prime coats and adhesion promoters should be stored below

32°C (90°F). Special precautions must be taken to prevent moisture from contacting these materials before use. Containers should be kept tightly closed and head or air space minimized. Partially filled containers should be purged with dry air or other gases such as nitrogen to maximize shelf life. Small amounts for immediate use should be poured into clean, dry containers and discarded when finished. Material should not be used once it takes on a milky appearance or a large amount of white precipitate is observed, indicating moisture contamination. Repeated opening of the container can cause a small amount of white precipitate to form inside the container cap area, which does not affect the bulk material.

HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area. For further information, please see our website, www.dowcorning.com, or consult your local Dow Corning representative.

LIMITATIONS

These products are neither tested nor represented as suitable for medical or pharmaceutical uses.

LIMITED WARRANTY INFORMATION PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Dow Corning's products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken

as inducements to infringe any patent. Dow Corning's sole warranty is that the product will meet the Dow Corning sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. DOW CORNING SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY. DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

**SAFE HANDLING
INFORMATION**
PRODUCT SAFETY
INFORMATION REQUIRED FOR
SAFE USE IS NOT INCLUDED IN
THIS DOCUMENT. BEFORE
HANDLING, READ PRODUCT
AND MATERIAL SAFETY DATA
SHEETS AND CONTAINER
LABELS FOR SAFE USE,
PHYSICAL AND HEALTH
HAZARD INFORMATION. THE
MATERIAL SAFETY DATA
SHEET IS AVAILABLE ON THE
DOW CORNING WEBSITE AT
WWW.DOWCORNING.COM, OR
FROM YOUR DOW CORNING
REPRESENTATIVE, OR
DISTRIBUTOR, OR BY CALLING
YOUR GLOBAL DOW CORNING
CONNECTION.

For More Information
To learn more about these and other products available from Dow Corning, please visit the Dow Corning Electronics website at www.dowcorning.com/electronics.



Electronics
Solutions

Dow Corning and Sylgard are registered trademarks of Dow Corning Corporation. All other trademarks or brand names are the property of their respective owners. ©2008 Dow Corning Corporation. All rights reserved. Printed in USA Form No. 11-1431A-01