BONDERITE

Technical Data Sheet

BONDERITE M-CR 871

Known as ALODINE 871 TOUCH-N-PREP
July 2017

PRODUCT DESCRIPTION

BONDERITE M-CR 871 provides the following product characteristics:

Technology	Metal Pretreatment
Product Type	Conversion Coating
Application	Chromate Coating

BONDERITE M-CR 871 is a non-hexavalent chromium dry-in-place conversion coating designed for use on aluminum and its alloys.
The applicator used to deliver this product provides an easy and safe method of repairing bare areas of aluminum surfaces.
BONDERITE M-CR 871 is formulated for both bare corrosion protection and for bonding applications when combined with organic coatings or structural adhesives.
BONDERITE M-CR 871 meets Mil-DTL81706B, Classes 1A and 3, Form VI, Method, and is on the QPL/QPD for this specification.

DIRECTIONS FOR USE

Preliminary Statement:
Prior to use it is necessary to read the **Material Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed. Please also refer to the local safety instructions and contact Henkel for analytical support.

Cleaning:
Begin the process with a clean, water break free, dry surface.
If the water rinse or BONDERITE M-CR 871 Treatment Solution beads up on the surface, it has not been properly cleaned or it was re-contaminated.
Avoid finger marks!
Clean latex gloves are highly effective at preventing finger oil and lint contamination during the entire process.
Clean lint free cloth gloves are also acceptable.

A preferred method of surface cleaning is the use of a wet Bear-Tex, Scotch Brite®, or equivalent abrasive pad to abrade the surface. Abrading the surface in two directions at 90 degrees is recommended. After cleaning rinse with water, if appropriate, and dry the surface with a clean cloth. If cleaning with a dry abrasive pad to remove oxidation is required, a wipe with a clean damp cloth is recommended to help remove all residues. Wipe until no visual residue is picked up from the surface. A surface clean of residue (smut, abrasive fines etc.) will help keep the applicator felt tip from becoming fouled.

Use and Coverage:
Light Coating Weight for Bonding:

Felt tip damp. Wet film appearance similar to a common felt-tipped type marker. Dried appearance is nearly colorless.

Moderate Coating Weight for Painting:

Felt tip moderately wet. Wet film appearance is heavy, but would not sag if held at a 90 degree angle. Dried appearance is opaque.

Heavy Coating Weight for Bare Protection:

Felt tip wet. Wet film appearance is very heavy and would sag and possibly drip if held at a 90 degree angle. The dried appearance is an opaque blue iridescent. If the coating puddles or tends to run, an excessive coating weight may be obtained. Be especially aware of depressions on the surface where excessive treatment solution could collect. If this occurs, blot off the excess solution before it dries.

For economy and quality, the operator should be trained to keep the tip fairly moist- but not saturated with the treatment solution.

Proper Application and Use Procedure of BONDERITE M-CR 871 Pen.

Cleaning and Deoxidizing:
STEP 1:

Pre-clean the surface. If a solvent is used, do not allow the solvent to dry on the surface, but remove the solvent and dry the surface with a clean lint free cloth.

STEP 2:

Wet a Scotch-Brite or other similar abrasive pad materials with water and scrub the metal surface to remove oxides and expose a fresh metal surface.

Scotch-Brite (3M) Clear Blend Prep Scuff (07745) or equivalent is suggested.

Abrasion of the surface in two directions is recommended.

Rinse with water while cleaning (if possible) and then look for a water break free surface.

If there is a water break, then continue scrubbing until a water break free surface is obtained and rinse again.

STEP 3:

After rinsing, wipe the surface with a fresh, clean dry cloth. Allow the metal surface to dry before the coating application.

Note:

Wet cleaning is highly recommended. If water wet abrasive is not allowed due to sensitive components in the vicinity of the area to be treated, dry abrasive followed by a wipe with a clean water-damp wiper is recommended to remove cleaning residues. Wipe until no dark residue is picked up from the

Canada

Henkel

surface. A surface clean of residue (smut, etc.) will help keep the felt tip from becoming fouled.

Treating the Surface with BONDERITE M-CR 871:

STEP 1:

Remove the cap. To activate, hold unit with applicator tip down on the cleaned active surface to be treated. Press and hold the pen tip down on the surface. This will open the spring valve allowing BONDERITE M-CR 871 to reach and wet the applicator tip. A new unit should charge in 15 to 30 seconds. When the BONDERITE just wets the tip, release the downward pressure. The unit is now ready to use.

Note:

The operator must insure that the tip does not become overly saturated with treatment solution.

STEP 2:

Apply BONDERITE M-CR 871 Coating to the aluminum surface with firm, smooth, even strokes. Be sure to cover all edges. Overlap each stroke 10 to 25% to insure full coverage. Excess overlap may deposit a very heavy coating which may be detrimental to performance. DO NOT PUDDLE! DO NOT RINSE! DO NOT WIPE!

Note:

Solution breaks (de-wetting) must not be observed. A void in the wet film indicates inadequate cleaning. If needed, repeat the cleaning. Firm strokes during the application helps to avoid de-wetting.

STEP 3:

A second coat is required at a 90-degree angle to the first coat. Apply the second coat within 5 minutes after the first coat dries due to the fact that the treated surface becomes more hydrophobic as it ages. DO NOT PUDDLE! DO NOT RINSE! DO NOT WIPE!

Note:

As long as the Touch-N-Prep pen wets the surface, an adequate coating will form. The dried coating deposited will range from nearly colorless to a white opaque color.

STEP 4:

BONDERITE M-CR 871 Coating can be allowed to air dry. Using warm air or a radiant heat source such as a heat lamp is allowed (maximum recommended temperature is 60°C. A consumer hair dryer is ideal and will avoid overheating the surface. Do not disturb the wet film during drying; such as by excessive airflow or contact with the treated surface.

Note:

An uneven appearance of the dry film is normal. Pre-warming the surface will give a significantly more uniform
appearance, and is recommended especially when the metal temperature or the ambient temperature is less than 10°C.

STEP 5:

To rewet the applicator tip, repeat the activation process. Frequent short “jabs” to rewet the tip are preferred to
maintain constant coating weights and avoid over-wetting the felt tip.

STEP 6:

Always immediately replace the cap when not in use to avoid evaporation and contamination.

STEP 7:

When BONDERITE M-CR 871 is thoroughly dry, primers or other coatings may be applied.

Note:

(1) For Airbus paint adhesion applications, BONDERITE M-CR 871 must be rinsed with DI water or wiped with a DI water saturated wipe after application. (2) A new applicator tip can be cut to conform to any shape with a single edge razor blade.

Consult the appropriate Henkel Material Safety Data Sheets for safety and handling guidelines for this product.

Scotch Brite® of the 3M Company.

Storage:

Recommended Storage Temperature, °C	0 to 40
Shelf life, months	24
(in unopened original packaging)	

Classification:

Please refer to the corresponding **Material Safety Data Sheets** for details on:

Hazards identification
Transport information
Regulatory information

Sample X

ADDITIONAL INFORMATION

Disclaimer

Note:

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.
Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:
In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:
The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product.
Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

In case products are delivered by Henkel Corporation, Resin Technology Group, Inc., or Henkel Canada Corporation, the following disclaimer is applicable:
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 and/or registered trademarks of Henkel and its affiliates in the U.S. and elsewhere.

Reference 0.0

Saptionyx