

BONDERITE M-NT 1455 SF

June 2022

PRODUCT DESCRIPTION

BONDERITE M-NT 1455 SF provides the following product characteristics:

Technology	Conversion coating
Product Type	Conversion coating
Application	Dry in place

BONDERITE M-NT 1455 SF is a dry-in-place chromium-free treatment for aluminium, zinc, zinc alloy and cold rolled steel surfaces for continuous strip lines.

It produces a uniform coating which improves the adhesion, inhibits corrosion and increases the durability of paint finishes.

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.

Material Compatibility:

BONDERITE M-NT 1455 SF
BONDERITE CLEANER
Testing Reagents and Apparatus

Equipment:

The holding tank, pump, piping and solution trays should be constructed of stainless steel.

The holding tank and piping may be constructed of, or lined with plastic (PVC etc.).

The applicator rolls should be constructed of polyurethane or CSPE.

The pickup rolls should be 316 series stainless steel quadrigravure (30 x 30 x 0.006" – 0.009") or rolls of equivalent pick-up characteristics.

Chemical feed pump parts and other elastomers which may come into contact with the concentrated replenishing chemical should be FKM or PTFE.

Support equipment available from Henkel Technologies for this process includes: chemical feed pumps, level controls, transfer pumps and bulk storage tanks.

Your local sales representative should be consulted for information on Henkel Technologies automatic process control equipment for this process and any additional questions.

Application:

- Cleaning
- Hot water rinsing
- BONDERITE M-NT 1455 SF
- Drying

Cleaning:

All metal must be free of grease, oil, rust, scale and other foreign matter before the coating solution is applied. A complete line of BONDERITE cleaners is available.

Water Rinsing:

After cleaning, the metal must be rinsed thoroughly with water. The overflow-rate should be high enough to keep the rinse clean and free from scum and contamination.

BONDERITE M-NT 1455 SF:

The coating solution is applied at temperatures from 20 to 40 °C, in a uniform film to the properly cleaned strip.

The post-treated sheet or strip should pass through a dry-off unit adequate to remove surface moisture.

It is essential that a uniform film of coating solution be applied to the strip.

With roll coat application, it is necessary that the rolls be maintained to ensure a uniform film application.

Specified range, mg TI/m² 2 to 10

At a wet film of 5 mL/m² the following coating weights are obtained:

Vol.-%	Ti (mg/m ²):
3	2
7	5
14	10

Bath Make-up:

Fill the tank about 1/2 full with DI-water. Add per 100 L:

BONDERITE M-NT 1455 SF 1 to 20 L

This is equivalent to 1-20 % v/v.

Fill up to working level and mix thoroughly.

The concentration can be checked by titration of the Free Acid:

- Pipette 20 mL bath solution into a beaker and dilute with water.
- Add 4 to 5 drops bromo phenol blue (pH 4.5).

- While stirring, run 0.1 N NaOH solution from a burette until the colour changes from yellow to blue-violet.

Specified values:

% v/v	mL 0.1 N NaOH
5	2.3
10	4.6
15	6.9
20	9.2

Cleaning Procedure:

The equipment used for application of the solution should be cleaned immediately after use. Water may be used for cleaning.

Drying:

The treated strip must be dried as quickly and evenly as possible to ensure uniform film formation. The strip must pass through a dry-off unit adequate to remove the water. Air movement within the oven should be sufficient to remove evaporated water, but must not physically disturb the wet film. The required dry off temperature may vary depending on the specific application. Once applied, the wet film must not be disturbed before it has dried completely. Care must be taken to avoid physical contact with the strip before the film has dried. The treated strip CANNOT be water quenched.

Waste Disposal:

Applicable regulations covering disposal and discharge of chemicals should be consulted and followed.

Disposal information for the chemicals, in the form as supplied, is given on the Material Safety Data Sheet for each product.

The processing bath and sludge can contain ingredients other than those present in the chemical as supplied and analysis of the solution and/or sludge may be required prior to disposal.

Precautions:

When handling the chemical products used in this process, the first aid and handling recommendations on the Material Safety Data Sheet should be read, understood, and followed.

The processing solution is acidic and may be irritating to skin and may cause burns to eyes. Avoid contact with skin and eyes. In case of contact follow the recommendations for contact given on the Material Safety Data Sheet for BONDERITE M-NT 1455 SF.

Classification:

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

Hazards identification
Transport information
Regulatory information

Storage:

Recommended Storage Temperature, °C	5 to 35
Shelf life, months (in unopened original packaging)	12

ADDITIONAL INFORMATION

Disclaimer

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.

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Reference 0.0