

## BONDERITE M-NT 1455

Known as Bonderite 1455

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### PRODUCT DESCRIPTION

BONDERITE M-NT 1455 provides the following product characteristics:

<b>Technology</b>	Conversion coating
<b>Product Type</b>	Conversion coating
<b>Application</b>	Dry in place

BONDERITE M-NT 1455 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.

#### Bath Make-up:

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

BONDERITE M-NT 1455      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

#### Application:

- Cleaning
- Water rinsing
- DI-water rinsing
- Drying

- BONDERITE M-NT 1455
- Oven 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. Details for the proper one can be taken from the technical data sheets.

#### Water rinsing + DI-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. For the last rinsing stage DI-water with a maximum conductivity of 100 µS/cm should be used. To enable better drying, a temperature of 40 to 50 °C is recommended.

#### Drying:

The strip must be dried prior to the application of the treatment solution.

#### BONDERITE M-NT 1455:

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

Preferably, a chemcoater should be used.

The so treated strip should not be rinsed.

The concentration is determined by the wet film thickness and the desired coating weight.

The coating weight can be determined by measuring Ti on the surface (e. g. by x-ray fluorescence).

Specified range, mg Ti/m<sup>2</sup>                      2 to 10

At a wet film of 5 mL/m<sup>2</sup> the following coating weights are obtained:

Vol.-%	Ti (mg/m <sup>2</sup> ):
3	2
7	5
14	10

#### Oven drying:

The treated strip is passed through a dry-off oven as fast as possible. The PMT has to be at least 50 °C.

#### Classification:

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

**Hazards identification**

**Transport information**

**Regulatory information**

**Storage:**

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

**ADDITIONAL INFORMATION****Disclaimer****Note:**

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