BONDERITE

BONDERITE M-AC 50

Known as Fixodine 50
April 2015

PRODUCT DESCRIPTION

BONDERITE M-AC 50 provides the following product characteristics:

Technology	Metal Pretreatment
Product Type	Activation product for phosphating process
Application	Dip, spray or coil lines
Process components:	BONDERITE M-AC 50 BONDERITE M-AD 565

BONDERITE M-AC 50 is a powdered activating product added to the rinsing bath prior to a dip or spray phosphate treatment.
It is also possible to use the product in coil lines.

Application Areas

BONDERITE M-AC 50 is effective in producing uniform and fine crystalline phosphate coatings on iron, steel, aluminium and zinc surfaces. The product is suitable for the use in hard water to only a limited extent.

TECHNICAL DATA

Density, kg/L	1.1

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, for 1,000 L:

While stirring or with the circulation pump running, the following amount is added to the bath tank filled with water:

BONDERITE M-AC 50	
Spray application, kg	0.05 to 1.0
Dip application, kg	0.5 to 5

Operating data:

pH-value	8.0 to 10.5
Conductivity, µS/cm^{-1} (in DI water)	50 to 5,000
Total alkalinity, (in DI water)	0.25 to 25
Temperature, °C max.	20 to 40
Duration of treatment, s	3 to 120

Bath monitoring:

BONDERITE M-AC 50 solution is controlled by determination of pH and conductivity or by determination of pH and total alkalinity.

Specified range:	
pH-value	8.0 to 10.5
Conductivity:	
Spray application, µS/cm^{-1} (in DI-water)	50 to 1,000
Dip application, µS/cm^{-1} (in DI-water)	500 to 5,000
Total alkalinity:	
Spray application (in DI-water)	0.25 to 5
Dip application (in DI-water)	2.5 to 25

When the BONDERITE M-AC 50 bath is no longer effective it should be discarded and a new bath should be made up.

Titration of total alkalinity:

- Pipette 100 mL bath solution to an Erlenmeyer-flask.
- Add 4 to 5 drops of indicator bromocresolegreen 0.1 % solution .
- Titrate the solution against 0.1 N sulfuric acid. The point will be shown by a colour change from blue to yellow.
- The consumption of 0.1 N sulfuric acid in mL is equal to points of total alkalinity.

Remark:
The conductivity and the total alkalinity may be influenced by the water quality and the drag in of rinse water after degreasing.

Replenishment:

To increase the conductivity 100 µS/cm^{-1}, add per 1,000 L bath:

BONDERITE M-AC 50	0.1 kg

To increase the total alkalinity 1 point, add per 1,000 L bath:

BONDERITE M-AC 50	0.2 kg

Remark:
To keep a stable concentration and an excellent performance, the replenishment of the bath with BONDERITE M-AC 50 should be done corresponding to the throughput (= treated surface and carrier surface) and the eventual overflow according to the make-up concentration of the bath.

The drag out can be calculated as follows
(drag out: 100 mL/m²):

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Example:
1,000 m² x 0.1 L/m² (drag out) x 2 g/L (make-up concentration) = 200 g

For throughput of 1,000 m² add 200 g BONDERITE M-AC 50. Further additions are necessary for an eventual overflow and/or a partial make-up.

If the pH of the activation bath is too low after addition of required amount of BONDERITE M-AC 50, add BONDERITE M-AD 565.

Classification:

Please refer to the corresponding **Material Safety Data Sheets** for details on:
Hazardous Information
Transport Regulations
Safety Regulations

Storage

Recommended Storage Temperature, °C	-10 to 40
Shelf life, months (in unopened original packaging)	24

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.
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