

## BONDERITE M-AD 338

Known as Toner 338  
July 2019

### PRODUCT DESCRIPTION

BONDERITE M-AD 338 provides the following product characteristics:

<b>Technology</b>	Metal Pre-Treatment
<b>Product Type</b>	Additive for zinc phosphating baths
<b>Application</b>	immersion or spray process

BONDERITE M-AD 338 is a liquid additional product, composed of inorganic salt and water.

#### Application Areas:

BONDERITE M-AD 338 is used in spray- and spray/immersion processes. It must be combined with a suitable cleaning booster.

BONDERITE M-AD 338 is a liquid product to increase the fluoride content in zincphosphate baths up to 5 % aluminium share of the total surface throughput.

### TECHNICAL DATA

Appearance	clear liquid
Density	~1.1 g/cm <sup>3</sup>
pH-value (1% in DI water 20°C)	acidic

### 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:

In zinc phosphate baths:

To increase the fluoride content by 0.1 g/L add to the 1,000 L bath:

(0.1 g/L fluoride correspond in a zincphosphate bath to approx. 33 mg/l (33 ppm) free fluoride:

BONDERITE M-AD 338                      0.5 kg = 0.46 L

With this addition the free acid increases 0.1 to 0.15 points and total acid increases 0.2 points.

BONDERITE M-AD 338 contains no alkali (like Na, K) to precipitate aluminum as cryolite or elpasolite.

If the total surface consists of more than 5 % of aluminum, we recommend to use an alkali containing additive.

In iron phosphate baths:

BONDERITE M-AD 338 can be used to increase fluoride in ironphosphate baths.

#### Classification:

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

**Hazards identification**  
**Transport information**  
**Regulatory information**

#### Storage:

Recommended Storage Temperature	5 to 40°C
Shelf-life, months	36

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