

SurTec® 616 V

Grain Refiner

for Manganese Phosphatings

Properties

- powder product used prior to manganese phosphatings
- contains titanium compounds which are easy to disperse in water forming a stable colloidal solution
- produces uniform and well adherent manganese phosphate layers
- reaches a high density of nucleation sites, resulting in a fine-grained and dense crystal structure
- promotes good corrosion resistance

Application

SurTec 616 V is applied by immersion prior to manganese phosphating.

make-up value:	4-6 g/l
make-up:	Dissolve SurTec 616 V in water under strong agitation.
temperature:	room temperature up to 60°C
application time:	≥ 30 s
pH-value:	9.5-10.5
agitation:	air agitation necessary in order to keep the dispersion evenly mixed in the solution
tank material:	stainless steel or steel coated with PVC
filtration:	not recommended
heating:	if necessary to preheat bulky parts, use stainless steel heaters
cooling:	not applicable
exhaust:	required for worker's protection

Technical Specification

(at 20°C)	Appearance	Bulk density	pH-value (at 10 g/l)
SurTec 616 V	powder, white-pink	0.700-0.850	10 (8-11)

Maintenance and Analysis

Analyse the pH-value regularly and adjust by adding SurTec 616 V, if necessary.

In case of high throughput, prepare a new bath make-up once a week.

A new make-up also is recommended in case of poor grain refinement of the manganese phosphate crystals or in case of uneven crystallization.

Ingredients

- titanium compounds

Stock Keeping

In order to prevent delays in the production process, per 1,000 l bath the following amount should be kept in stock:

SurTec 616 V 10 kg

Product Safety and Ecology

The safety instructions and the instructions for environmental protection have to be followed in order to avoid hazards for people and environment. The Material Safety Data Sheets (according to European legislation) contain explicit details for this.

The following hazard designations and classifications into water hazard classes (WHC) have to be taken into account:

<u>product</u>	<u>hazard designation</u>	<u>water hazard class</u>
SurTec 616 V	-	WHC 1

Warranty

We are responsible for our products in the context of the valid legal regulations. The warranty exclusively accesses for the delivered state of a product. Warranties and claims for damages after the subsequent treatment of our products do not exist. For details please consider our [general terms and conditions](#).

Further Information and Contact

In our forum, you can discuss topics of the surface technology:
<http://forum.SurTec.com/>

If you have any questions concerning the process, please contact your local technical department: <http://SurTec.com/International.html>

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