

SurTec® 485

Akaline Desmutting

Properties

- alkaline powder
- removes the passive film, without attacking the aluminium surface
- no attack on the basic material after the removal of the polishing film
- no reduction of gloss will be caused by the desmutting process
- this product can be used for acidic as well as for alkaline electrolytic brightening processes

Application

make-up value: 30-35 g/l

application time: 30-120 s

temperature: room temperature (20-25 °C)

pH-value: > 12

tank material: polypropylene (PP) or steel tanks (alloy 1.4571)

heating: required

exhaust: required for worker's protection

filtration: possible

hints: Prior to desmutting the work pieces have to be rinsed thoroughly.
The desmutting is done under air agitation.

Technical Specification

(at 20 °C)	Appearance	Bulk Density (kg/l)	pH-value
SurTec 485	powder, white	1.100 (1.00-1.20)	-

Maintenance and Analysis

Analyse and adjust the concentration of SurTec 485 regularly.

Sample Preparation

Take a sample at a homogeneously mixed position. Let it cool down to room temperature. If the sample is turbid, let the turbidity settle down and decant or filter the solution.

SurTec 485 – Analysis by Titration

reagents:	1 mol/l hydrochloric acid (= 1 N HCl) potassium fluoride solution (KF, 35 %) indicator: phenolphthalein solution (1 % in 70 % ethanol)
procedure:	1. Pipette 25 ml bath sample into an 250 ml Erlenmeyer flask. 2. Dilute to approx. 100 ml with deionised water. 3. Add some drops of phenolphthalein solution (solution colour turns to pink). 4. Titrate with 1 mol/l hydrochloric acid to colourless, consumption A (ml). 5. Add 10 ml potassium fluoride solution (solution colour turns to pink again). 6. Titrate again with 1 mol/l hydrochloric acid from pink to colourless, consumption B (ml).
calculation:	(consumption A - 1/3 consumption B) · 2.89 = g/l SurTec 485 consumption B in ml · 0.2 = g/l aluminium
nominal values:	30-35 g/l SurTec 485 10.4-12.1 g/l of 1 mol/l hydrochloric acid (provided that 0 g/l aluminium)

Ingredients

- alkali hydroxide
- alkali fluoride
- alkali carbonate
- alkali hexafluorosilicate

Consumption and Stock Keeping

The consumption depends heavily on the drag-out. To determine the exact amounts of drag-out, see [SurTec Technical Letter 11](#).

The following value can be taken as estimated average consumption:

SurTec 485 10 g per m²

In order to prevent delays in the production process, the following amount, per 1000 litres bath, should be kept in stock:

SurTec 485 50 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 485	C - Corrosive	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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