

SurTec® 483

Acid Matt Pickling

Properties

- acidic liquid
- fluoride-based pickling product for aluminium and aluminium alloys
- produces a bright matt finish without any levelling effect
- suitable for mechanically or electrolytically polished surfaces

Application

make-up value:	330 g/l
application time:	1-10 min
temperature:	room temperature (20-25 °C)
tank material:	fluoride resistant material only (e.g. polypropylene (PP), or polyvinylidene fluoride (PVDF))
heating:	not necessary
exhaust:	required for worker's protection
filtration:	possible
hints:	<p>The pickling time depends on the desired degree of matt finish and ranges from 1 to 10 minutes.</p> <p>Continuous filtration of the bath liquid is expedient, as the reaction products will form insoluble deposits. Lifetime of the bath can be extended considerably by filtration.</p>

Maintenance and Analysis

For the maintenance of a uniform matt finish surface it is necessary to analyse and adjust the concentration of SurTec 483 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 483 – Analysis by Titration

reagents:	1 mol/l caustic soda solution (= 1 N NaOH solution) indicator: methyl red
procedure:	<ol style="list-style-type: none">1. Pipette 5 ml bath sample into a 250 ml Erlenmeyer flask.2. Dilute to 100 ml with deionised water.3. Add 10 drops of indicator (solution becomes red).4. Titrate with 1 mol/l caustic soda solution from red to yellow.
calculation:	consumption in ml · 30.8 = g/l SurTec 483
nominal value:	330 g/l SurTec 483 = 10.7 ml of 1 mol/l caustic soda solution

Technical Specification

(at 20 °C)	Appearance	Density (g/ml)	pH-value (conc.)
SurTec 483	liquid, colourless, slightly turbid	1.10 (1.05-1.15)	4 (3.5-4.5)

Ingredients

- fluoride salt
- surfactant

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 values can be taken as estimated average consumption:

SurTec 483 16-50 g per m²

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

SurTec 483 400 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 483	T - Toxic 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>