

Protection upgraded

SurTec® 496

High End Desmutting

Properties

- highly concentrated liquid product
- suited for spray- and immersion processes
- easy to handle
- removes even hard etching residues and oxides
- especially designed for aluminium alloys typically used in the aviation industry

Application

	<i>immersion</i>	<i>spray</i>
Make-up value:	15 %vol (10-25 %vol)	9 %vol (5-20 %vol)
Application time:	7 min (2-10 min)	60 s (30-120 s)
Spraying pressure:	-	1 bar (0.5-2 bar)
Agitation:	air agitation	
Temperature:	23°C (15-30°C)	
	To ensure optimal bare corrosion protection on high copper-containing aluminium alloys, a bath temperature of 30°C is recommended.	
Tank material:	steel with acid- and fluoride-resistant internal coating	
Heating:	not required	
Exhaust:	recommended for worker's protection	
Hints:	A slight turbidity of the bath solution does not disturb the desmutting process.	
	Storage: During storage, a slight precipitation may occur in SurTec 496 concentrate, which will not impair quality or function of the product.	

Recommended process sequence (*for aluminium parts*):

1. Immersion cleaning SurTec 133
2. Alkaline etching SurTec 181
3. **Desmutting SurTec 496**
4. Passivation SurTec 650
5. Rinse with deionised water (max. 30 µS/cm)
6. Hot air drying at max. 65°C

After each step, there has to be rinsed. The rinsing methods need to be adapted to the plating line.

Technical Specification

(at 20°C)	Appearance	Density [g/ml]	pH-value (conc.)
SurTec 496	liquid, yellow-brown, clear	1.311 (1.29-1.33)	< 1

Maintenance and Analysis

Analyse and adjust the concentration of SurTec 496 regularly.

Sample Preparation

Take a bath sample at a homogeneously mixed position and allow it to cool to room temperature if necessary. If the sample is turbid, let the turbidity settle and decant or filter the solution through a fluted filter.

SurTec 496 - Analysis by Titration

Reagents:	0.1 mol/l EDTA solution (EDTA-di-Na salt, Titriplex III) sodium hydroxide solution (10 %) indicator: 5-sulfo salicylic acid · 2 H ₂ O (2 % solution)
Procedure:	1. Pipette 5 ml bath sample into a 250 ml Erlenmeyer flask. 2. Dilute to approx. 100 ml with deionised water. 3. Adjust the pH-value to pH 2.5 with 10 % sodium hydroxide solution. 4. Add 2 ml indicator solution. 5. Titrate with 0.1 mol/l EDTA solution from deep red to slightly yellow until no further brightening is observable (<i>there is no sharp colour changing point</i>).
Calculation:	consumption in ml · 1.46 = %vol SurTec 496

Bath Contamination

Aluminium content:	max. 5 g/l
Copper content:	max. 0.5 g/l

Ingredients

- iron(III) salts
- fluorides
- nitrates

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 496	40 ml per m ² of treated surface
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In order to prevent delays in the production process, per 1000 l bath the following amount should be kept in stock:

SurTec 496 200 kg

Product Safety and Ecology

Classification and designation are noted in the **Material Safety Data Sheets** (according to the European legislation). The safety instructions and the instructions for environmental protection have to be followed in order to avoid hazards for people and environment. Please pay attention to the explicit details in our Material Safety Data Sheets.

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 further processing of our products do not exist. For details, please find our country-specific **General Terms and Conditions** for downloading on our homepage or ask your regional SurTec representative.

Further Information and Contact

If you have any questions concerning the process, please contact your local technical department.

For further information and contact details, please visit our homepage:

<http://www.SurTec.com>

26 May 2025