

SurTec® 521

PE-Dispersion

Properties

- liquid lubricant dispersion
- after drying, produces a homogeneous matt, colourless and stable layer
- decreases the friction coefficient to about 0.13 depending on the base material and the used concentration of SurTec 521
- improves the corrosion resistance of the layer system
- IMDS-number: 41368885

Application

SurTec 521 is applied as a topcoat after plating and passivation.

	<i>centrifuge</i>	<i>immersion</i>
make-up values:	25 %vol	12.5 %vol
make-up:	Steps for make-up: 1. Fill SurTec 521 into the clean tank. 2. Fill up to the final volume with deionised water, stirring vigorously.	
temperature:	room temperature (10-40°C)	
pH-value:	8-10 in the current process adjust with ammonia solution or with SurTec 520 A, if necessary	
application time:	20 s; the parts should be wetted completely	
agitation:	not necessary	
tank material:	steel tank with plastic coating, stainless steel or plastic tank	
filtration:	not necessary	
heating/cooling:	not necessary	
exhaust:	not required	
hints:	After treatment the parts should be dried directly (at approx. 60°C). Protect SurTec 521 from freezing.	

Technical Specification

(at 20 °C)	Appearance	Density (g/ml)	pH-value (conc.)
SurTec 521	viscous, yellowish, milky	1.000 (0.96-1.04)	9 (7-10.5)

Maintenance and Analysis

Check the pH-value regularly. Analyse and adjust the concentration of SurTec 521 regularly.

Replenish missing volume with fresh solution according to the make-up.

Sample Preparation

Take the sample at a homogeneously mixed position. If bigger particles are in the sample, decant the solution.

SurTec 521 – Analysis by Dry Residue (ISO 3251)

equipment: glass bowl, analytical balance, drying cupboard

procedure:

1. Weigh out a clean empty bowl.
2. Pipette 25 g bath sample into the bowl.
3. Dry the sample at 120 °C for 2 h in a drying cupboard.
4. Let it cool down to room temperature.
5. Weigh the bowl again.

calculation: $\text{dry residue in g} \cdot 10 = \% \text{vol SurTec 521}$

Ingredients

- dispersion of polyethylene

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](#).

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

SurTec 521 200 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 521	-	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>