

SurTec® 555

Temper Resistant Sealer

Properties

- liquid light blue dispersion
- chromate free
- suitable for trivalent blue passivation, Chromiting and trivalent black passivation as well as for hexavalent yellow and olive chromates
- for immersion and spray application
- leads to a clear organic film providing a temper resistant corrosion protection
- improves corrosion protection by 100-150 h neutral salt spray with respect to the passivation treatment
- can be removed with the help of hot alkaline SurTec cleaners
- Volvo-standard (soluble hexavalent chromium) is guaranteed
- IMDS number: 977617

Application

make-up value:	30 %vol	(20-40 %vol)
make-up:	Steps for make-up: 1. Fill SurTec 555 into the tank. 2. Check the pH-value of the deionised water and adjust to pH 7-8. 3. Add the adjusted water to the tank.	
temperature:	room temperature	(10-50 °C) (do not heat the bath!)
drying temp.:	70 °C	(< 120 °C)
pH-value:	8-9	adjust with diluted ammonia, ethanol amine or SurTec 520 A
application time:	dip the parts into the process solution and take them out immediately or spray the process solution onto the parts	
tank material:	stainless steel, plastic, or steel with plastic coating; for barrel application: separate centrifuges are necessary	
filtration:	continuous coarse filtration recommended (especially if acid is dragged in, which leads to precipitations)	
heating:	not necessary and not recommended	
hints:	SurTec 555 and its solutions flocculate in acidic solutions. The pH-value of the make up water, therefore, has to be higher than pH 7. Furthermore, take care that SurTec 555 and its solutions are not mixed with acidic solutions in, for example, waste water tubes to prevent undesired flocculation which cannot be dissolved any more. However, this effect can be used for waste water treatment of SurTec 555 (see "Product Safety and Ecology").	

SurTec 555 cannot be applied directly in the barrel line, because the whole barrel would be sealed, the pores would be closed and it is very difficult to remove it. SurTec 555 has to be applied in separate centrifuges, where rotation speed and drying temperature can be varied. The centrifuge baskets have to be cleaned regularly (see "removal").

removal: The sealer can be removed in hot soak cleaning solution with base concentration of at least 80 g/l NaOH and temperatures > 75 °C (e.g. 10 % NaOH + 1-3 % SurTec 188). The floating flakes have to be filtered off.

Technical Specification

(at 20 °C)	Appearance	Density (g/ml)	pH value (conc.)
SurTec 555	liquid, light blue, milky	0.995 (0.97-1.02)	8.5-9.5

Maintenance and Analysis

Analyse and adjust the concentration of SurTec 555 and the pH value 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 (coarse).

SurTec 555 – Analysis by ISO 3251

equipment:	glass bowl analytical balance
procedure:	1. Weigh out a clean empty bowl. 2. Pipette 10 ml bath sample into. 3. Dry the sample at 120 °C for 2 h. 4. Weigh the bowl with the dry residue.
calculation:	dry residue in g · 50.6 = %vol SurTec 555

Ingredients

- synthetic polymers
- nonionic surfactants

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 555 120 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 555	-	WHC 2

The crack process of the dispersion can be done preferably using sulfuric acid and eventually by addition of a flocculation additive as SurTec 925.

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>

22 October 2009/DK, MO