

SurTec® 320 B

Tin Colouring Salt

Properties

- powder product
- tin salt for electrolytic colouring of anodised aluminium
- colour tones from light bronze to black can be achieved
- utilisation of a stabilizer (e.g. SurTec 320 S) is recommended for the initial concentration and the further bath operation
- can be used in ordinary AC colouring process as well in our patented CBS colouring process

Application

make-up value:	18-20 g/l
application time:	0.5-15 min (depending on the desired colour)
temperature:	22°C (20-24°C)
tank material:	polypropylene (PP), glass fibre reinforced plastic (GRP) or gummed steel tanks
heating:	recommended
cooling:	recommended
exhaust:	required for worker's protection
filtration:	recommended: 0.1-0.5 times the total bath volume per hour, pore size: 10 µm

Technical Specification

(at 20°C)	Appearance	Bulk density (kg/l)	pH-value (at 200 g/l)
SurTec 320 B	powder, white	1.300 (1.18-1.42)	approx. 1

Maintenance and Analysis

Bath fluid will be constantly carried off by the material being coloured and the colouring process uses up the active substances. So analyse the concentration of SurTec 320 B by titration regularly and adjust if necessary.

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 320 B – Analysis by Titration

reagents:	0.02 mol/l potassium iodate solution (= 0.1 N KIO ₃ -solution) hydrochloric acid (conc.) indicator: starch solution (1 g starch dissolved in 200 ml water and boiled for 15 min)
procedure:	1. Pipette 25 ml sample into a 250 ml Erlenmeyer flask. 2. Dilute to approx. 100 ml with deionised water. 3. Add 10 ml concentrated hydrochloric acid. 4. Add 5 ml starch solution and mix well. 5. Titrate with 0.02 mol/l potassium iodate solution from colourless to blue colouration.
calculation:	consumption in ml · 0.43 = g/l SurTec 320 B
nominal values:	18-20 g/l SurTec 320 B corresponds to: 42.0-46.5 ml 0.02 mol/l potassium iodate solution

Ingredients

- tin salt

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 per m² can be taken as estimated average consumption:

SurTec 320 B	2-10 g	(C 31 - C 35)
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In order to prevent delays in the production process, per 1,000 l bath the following amount should be kept in stock:

SurTec 320 B	25-50 kg
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Product Safety and Ecology

The safety instructions and the instructions for environmental protection have to be followed in order to avoid hazards for human and environment. The Material Safety Data Sheets (according to European legislation) contain detailed information.

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 320 B	Xi - Irritant	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>

29 September 2011/DK, WT