

# SurTec® 522 Black

## Glide Wax Black

### Properties

- liquid lubricant dispersion
- is used as top coat after black passivation
- after drying, produces a homogeneous, black coloured, bright and stable layer
- the dry parts do not stick together and are dry to the touch
- decreases the friction coefficient to about 0.11
- improves extremely the corrosion resistance of the layer system
- also suited for barrel application

### Application

SurTec 522 is applied as a top coat after plating and black passivation.

concentration:	<i>centrifuge</i>	<i>immersion</i>
SurTec 522 Black	25-40 %vol	12.5-25 %vol

make-up: Steps for make-up:

1. Fill SurTec 522 Black into the clean tank.
2. Check the pH-value of the deionised water and adjust to pH 7-8.
3. Add the adjusted deionised water, stirring vigorously and fill up to the final volume.

temperature: room temperature (10-40 °C)

pH-value: 8-10  
in the current process adjust with ammonia solution or SurTec 520 A, if necessary

application time: 20 s; the parts should be wetted completely

tank material: steel tank with plastic coating, stainless steel or plastic tank

filtration: not necessary

heating/cooling: not necessary

hints: After treatment the parts should be dried directly (up to 60 °C).

SurTec 522 Black and its solutions flocculate in acidic solutions. The pH of the make up water, therefore, must be higher than 7. Furthermore, care must be taken that SurTec 522 Black and its solutions are not mixed with acidic solutions for example in waste water tubes, to prevent undesired flocculation which cannot be dissolved any more.

Protect SurTec 522 Black from freezing.

## Technical Specification

(at 20 °C)	Appearance	Density (g/ml)	pH-value (conc.)
SurTec 522 Black	viscous, black, turbid	1.023 (1.01-1.04)	9.2 (7.5-10.2)

## Maintenance and Analysis

Check the pH-value regularly. Analyse and adjust the concentration of SurTec 522 Black regularly. Replenish missing volume with fresh solution.

### Sample Preparation

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

### SurTec 522 Black

equipment:            glass bowl  
                             analytical balance

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

calculation:            drying residue in g · 11.6 = %vol SurTec 522 Black

## Ingredients

- dispersion of polyethylene
- black pigments

## 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 amounts should be kept in stock:

SurTec 522 Black    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 522 Black	-	WHC 2

## **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 January 2008/DK, PV