

## AQUAGUARD

This treatment is composed by 4 products: AQUAGUARD, AQUAEST, AQUASLIDE , HYGROS 100

"Enclosed in the list of approved chemical input of GLOBAL ORGANIC TEXTILE STANDARD (GOTS) - Version 5.0 -"  
"Certified ZDHC Level 1 in ZDHC Gateway platform"

## Technical Sheet

### *CHEMICAL-PHYSICAL PROPERTIES*

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Chemical composition:	Emulsion of reactive polydimethylsiloxane.
Physical appearance:	White liquid
Ionic nature:	cationic
pH(sol.5%):	4-5
Water solubility:	Complete.
Compatibility:	Cationic and nonionic product. Pre-dilute the product in soft water.
Storage and stability:	6 months since delivery date, if kept in its original, well-sealed containers. Do not store at temperatures of below 5°C or above 35°C.

### *GENERAL INFORMATION*

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**AQUAGUARD** is a reactive silicone macroemulsion, created for hydroproof treatment with a soft handfeel and breathability.

The treatment with **AQUAGUARD** gets an increase in soil release properties and it is washing resistant to 5-8 washing cycle (depending on textile fiber content), both in water and perchloroethylene.

**AQUAGUARD** can be applied on textile of all fiber content. The application recipe has to be carried also with **AQUASLIDE**, **AQUAEST** and **HYGROS 100** in the recipe, otherwise the textile doesn't reach the best performance.

### *APPLICATIONS*

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Before the application of **AQUAGUARD** the fabric has to be prepared with a deep scouring, specially to clean the surface from the oily components.

**AQUAGUARD** can be applied both by padding and by spraying.

This solution is stable for 4-12 hours then it loose its effectiveness.

**AQUAGUARD** is compatible with other chemicals, but we suggest lab trials before the preparation the industrial treatment.

### *DOSAGE*

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#### Pad application:

Pick Up :80%

pH:4.5-5 acetic acid

10 g/l aquaest

30 g/l aquaguard

30 g/l aquaslide

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0.5-3 g/l hygros 100

We recommend the pick-up not to be lower of 80%, in the case the value will be less than 80% the recipe will be increase percentually.

**Setting:**

Drying the fabric to 120°C and then curing at 160°C for 1-2 minutes.

**Lab Test:**

We have noted that the max of hydrorepellency is obtained after a few days of storage of the treated fabric. This is due to a slow organization of the polymeric network, that brings the best performance only after a few days (not less than 24 hours).

We have carried out hydrorepellency test with Spray-Test (ISO 4920 AATCC 22-2001). The results were always ISO(5) and the washing fastness can be 3 or 5 washing cycles, depending on fiber composition.

The washing cycles has been in water with ISO 105-C06– UNI 8280 '90 while in perchloroethylene with UNI EN ISO 105/ D01 '94.

### **WARNING**

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*All the above is just a suggestion that needs looking at in-depth using preliminary tests so as to be able to make any necessary modifications.*

*The information contained in this technical report is taken from accurate laboratory research, checked by industrial tests and must only be used as a guide and as a help for using our products better.*

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