

PPE – Personal Protection Equipment

SEVOPHOB HFK-8 | FTU conc. | FWU-8 | FHK-6 | UFK-6 | FWB-6
TC-Bac DURABLE CLEAN | TC-Bac FRESH



PPE

Personal Protection Equipment is a key element in preventing the spread of viruses, germs and bacteria.

Health care facilities such as hospitals, doctors' surgeries, nursing homes and other social services urgently need face masks, gloves and protective clothing to prevent the corona virus from spreading further.

But also in everyday life, the wearing of hygiene masks was recommended or even made mandatory in many countries to prevent the transmission of diseases and thus reduce the risk of infection.

The Textilcolor products specially recommended for protective equipment improve the protective function of face masks and protective clothing. The main focus is on the permanent functionalisation and improvement of the wash resistance of the equipment.

On the outside, the repellent treatment creates a barrier effect through the so-called splash protection. The adhesion of droplets is avoided and thus the risk of infection is minimized.

Additional protection against infection is achieved by an antimicrobial treatment, which also ensures better hygiene and odour reduction.

TEXTILCOLOR Products

- Sevophob HFK-8
- Sevophob FHK-6
- TC-Bac DURABLE CLEAN
- Sevophob FTU conc.
- Sevophob UFK-6
- TC-Bac FRESH
- Sevophob FWU-8
- Sevophob FWB-6

Recommendation for use

Liquor Pick-up	60 – 80%		
Material		CO	PES
Recipe:			
Acetic acid 80%	ml/l	1.0	1.0
TC-SCHNELLNETZER FTI	g/l	0.5	0.5
SEVOPHOB	g/l	30.0 – 90.0	15.0 – 60.0
TC-Bac	g/l	10.0 – 20.0	20.0 – 30.0
drying temperature	°C	110 – 120	110 – 120
curing temperature	°C	150 – 170	150 – 170
curing time	min	3 – 1	3 – 1



Features and Benefits of Sevophob HFK-8

- ✓ Highly concentrated fluorocarbon resin for permanent water, oil and soil release finishing
- ✓ Liquid, slightly milky emulsion
- ✓ Solvent-free, non-flammable
- ✓ Can be diluted as required with cold soft water
- ✓ Hardness and alkali sensitive
- ✓ Generally compatible with resin finishing products; preliminary tests are recommended
- ✓ Very good water and oil-repellent effects are achieved
- ✓ Wash resistant
- ✓ Permanent effect with regards to dry cleaning

Composition

Fluorocarbon resin

Ionogenic characteristics

slightly cationic

Areas of application

Sevophob HFK-8 is used for the permanent hydrophobic - oleophobic - and soil release finishing of textiles made from cellulose fibres, synthetic fibres and their blends.

The finishing effects achieved with Sevophob HFK-8 show excellent permanence with regards to household laundry and dry cleaning.



Application

In order to ensure that the quality of the fabric is flawless, the article must be carefully pretreated and processing should be carried out with clean machines and equipment. Residues of preparations, sizes, lubricants, softeners and alkalis, as well as residues of wetting agents and detergents, should be removed by proper washing and rinsing.

We recommend the following treatment to remove surfactant residues:

1.0 g/l	Lavan BL
	pH 5 – 6
40 – 60°C	20 min.
	then rinse cold

Instructions for making solutions

Dilute **Sevophob HFK-8** with about twice the amount of cold water while stirring gently and then add to the application liquor, which is acidified (pH 4 – 5) with 1 ml/l of acetic acid (60%).

Quantities

Cellulose fibres	20.0 – 50.0 g/l	Sevophob HFK-8 pH 4 – 5 liquor pick-up approx. 60 – 80 % Dry Condense 150 – 160°C, 3 – 2 minutes
Synthetic fibres	10.0 – 30.0 g/l	Sevophob HFK-8 pH 4 – 5 liquor pick-up approx. 60 – 80 % Dry Condense 150 – 160°C, 3 – 2 minutes

Comments

The effect and the washing permanence can be increased by using 20 – 30% (based on the amount of FC resin) **Sevophob Aktivator FK**. This can also reduce the temperature during condensation to 140°C.

In the event of penetration problems we recommend the addition of

1.0 – 2.0 g/l	TC-Schnellnetzer FTI
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It is important to add penetration accelerator to the liquor before the fluorocarbon resin.

Features and Benefits of Sevophob FTU CONC.

- ✓ Fluorocarbon resin for permanent water, oil and dirt-repellent finishing
- ✓ Beige emulsion with acidic reaction
- ✓ Solvent-free, non-flammable
- ✓ Can be diluted as required with cold soft water
- ✓ Hardness and alkali sensitive
- ✓ Generally compatible with resin finishing products; preliminary tests are recommended
- ✓ Very good water and oil-repellent effects are achieved
- ✓ Wash resistant
- ✓ Permanent effect with regards to dry cleaning

Composition

Fluorocarbon resin

Ionogenic characteristics

Slightly cationic

Areas of application

Sevophob FTU conc. is used for the permanent hydrophobic, oleophobic and soil release finishing of textiles made from cellulose and synthetic fibres.

The finishing effects achieved with **Sevophob FTU conc.** show excellent permanence with respect to household laundry and dry cleaning. By using **Sevophob FTU conc.** treated materials are given a slightly softer and fuller handle.



Application

In order to ensure that the appearance of the fabric is flawless, the article must be carefully pretreated and processing should be carried out with clean machines and equipment.

Residues of preparations, sizes, lubricants, softeners and alkalis, as well as residues of wetting and washing agents should be removed by appropriate washing and rinsing.

To remove residual surfactants, we recommend the following treatment:

1.0 g/l	Lavan BL
	pH 5 – 6
40 – 60°C	20 min.
	then rinse cold

Instructions for making solutions

Dilute **Sevophob FTU** with about twice the amount of cold water while stirring gently and then add to the application liquor, which is acidified (pH 4 – 5) with 1 ml/l of acetic acid (60%).

Quantities

Cellulose fibres	30.0 – 60.0 g/l	Sevophob FTU conc. pH 5 – 6 liquor pick-up approx. 60 – 80 % Dry Condense 150 – 160°C, 3 – 2 minutes
Synthetic fibres	15.0 – 40.0 g/l	Sevophob FTU conc. pH 4 – 5 liquor pick-up approx. 60 – 80 % Dry Condense 150 – 160°C, 3 – 2 minutes

Comments

The effect and the washing permanence can be increased by using 10 – 20% (based on the amount of FC resin) **Sevophob Aktivator FK**.

This can also reduce the temperature during condensation to 140°C.

In the event of penetration problems we recommend the addition of

1.0 – 2.0 g/l	TC-Schnellnetzer FTI
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It is important to add penetration accelerator to the liquor before the fluorocarbon resin.

Features and Benefits of Sevophob FWU-8

- ✓ Fluorocarbon resin for permanent water, oil and soil release finishing
- ✓ Beige emulsion with acidic reaction
- ✓ Solvent-free, non-flammable
- ✓ Can be diluted as required with cold soft water
- ✓ Hardness and alkali sensitive
- ✓ Generally compatible with resin finishing products; preliminary tests are recommended
- ✓ Very good water and oil-repellent effects are achieved
- ✓ Wash resistant
- ✓ Permanent effect with regards to dry cleaning

Composition

Fluorocarbon resin

Ionogenic characteristics

slightly cationic

Areas of application

Sevophob FWU-8 is used for the permanent hydrophobic, oleophobic and soil release finishing of textiles made from cellulose and synthetic fibres.

The finishing effects achieved with **Sevophob FWU-8** show excellent permanence with regards to household laundry and dry cleaning.



Application

In order to ensure that the appearance of the fabric is flawless, the article must be carefully pretreated and processing should be carried out with clean machines and equipment. Residues of preparations, sizes, lubricants, softeners and alkalis, as well as residues of wetting and washing agents, should be removed by appropriate washing and rinsing.

To remove residual surfactants, we recommend the following treatment:

1.0 g/l	Lavan BL
	pH 5 – 6
40 – 60°C	20 min.
	then rinse cold

Instructions for making solutions

Dilute **Sevophob FWU-8** with about twice the amount of cold water while stirring gently and then add to the application liquor, which is acidified (pH 4 – 5) with 1 ml/l of acetic acid.

Quantities

Cellulose fibres	30.0 – 90.0 g/l	Sevophob FWU-8 pH 4 – 5 liquor pick-up approx. 60 – 80% Dry Condense 150 – 160°C, 3 – 2 minutes
Synthetic fibres	15.0 – 60.0 g/l	Sevophob FWU-8 pH 4 – 5 liquor pick-up approx. 60 – 80% Dry Condense 150 – 160°C, 3 – 2 minutes

Comments

In the event of penetration problems we recommend the addition of

1.0 – 2.0 g/l	TC-Schnellnetzer FTI
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It is important to add penetration accelerator to the liquor before the fluorocarbon resin.

Features and Benefits of Sevophob FHK-6

- ✓ Fluorocarbon resin for exceptionally high water and oil repellent finishing for all substrates
- ✓ Light beige emulsion
- ✓ Density approx. 1.1 g/cm³
- ✓ pH approx. 2.0-6.0
- ✓ C6 fluorochemicals
- ✓ Solvent-free, non-flammable
- ✓ Can be diluted as required with cold soft water
- ✓ Generally compatible with high-grade products; preliminary tests are advisable
- ✓ Excellent hydrophobic and oleophobic effect
- ✓ Permanent effect with regards to dry cleaning
- ✓ Wash resistant

Composition

Fluorocarbon resin

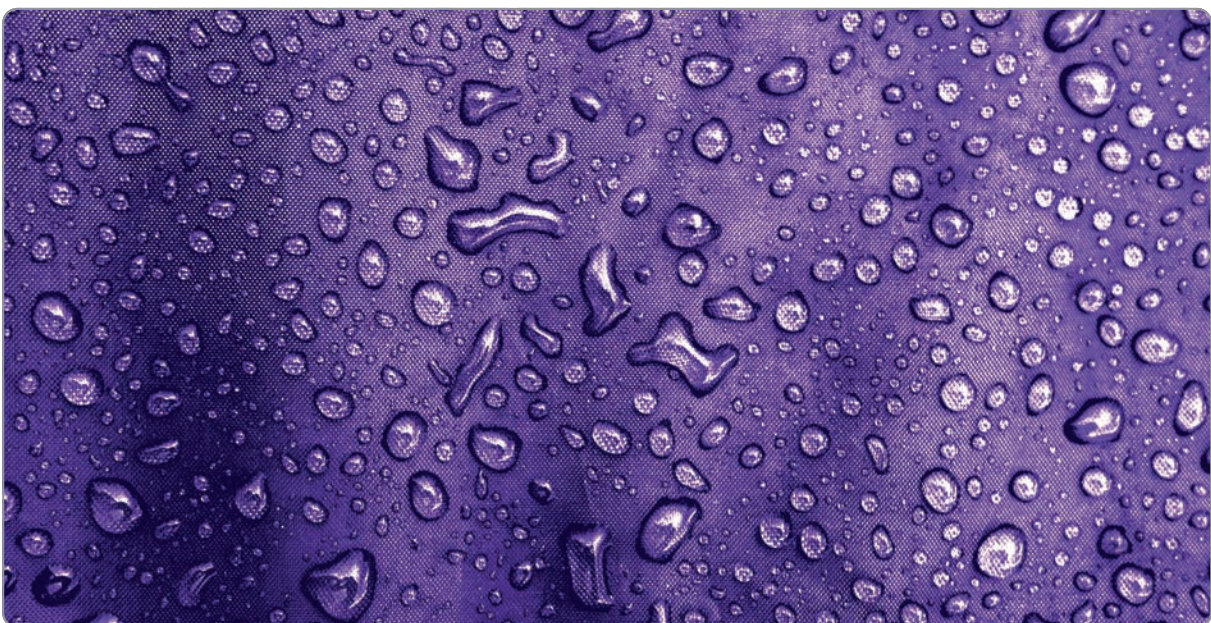
Ionogenic characteristics

Slightly cationic

Areas of application

Sevophob FHK-6 is used for the permanent hydrophobic and oleophobic finishing of textiles made from all common fibrous materials and their blends.

The finishing effects show excellent permanence with respect to household laundry and dry cleaning.



Application

Instructions for making solutions

Dilute **Sevophob FHK-6** with about twice the amount of cold water while stirring gently and then add to the application liquor, which is acidified (pH 4 – 5) with 1 ml/l of acetic acid.

In order to ensure that the appearance of the fabric is flawless, the article must be carefully pretreated and processing should be carried out with clean machines and equipment.

Residues of preparations, sizes, lubricants, softeners and alkaline, as well as residues of wetting and washing agents should be removed by appropriate washing and rinsing.

When using perfluorinated compounds in high-speed machines, care must be taken to ensure low shear resistance. High liquor turbulence should therefore be avoided.

To remove residual surfactants, we recommend the following treatment:

10 g/l	Lavan BL
	pH 5 – 6
40 – 60°C	20 min.
	then rinse cold

Quantities

Foulard/padding process

Cellulose fibres and mixtures	40.0 – 60.0 g/l	Sevophob FHK-6 Liquor pick-up approx. 60 – 80 % Dry 110 – 120°C Condense 160°C, 3 min. or 1 min. at 170 – 180°C
Synthetic fibres and mixtures	20.0 – 40.0 g/l	Sevophob FHK-6 Liquor pick-up approx. 60 – 80 % Dry 110 – 120°C Condense 160°C, 3 min. or 1 min. at 170 – 180°C

In the event of penetration problems we recommend the addition of

1.0 – 2.0 g/l	TC-Schnellnetzer FTI
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It is important to add penetration accelerator to the liquor before the fluorocarbon resin.

The use of silicone-based water repellents and softeners is not recommended, as these may reduce the stain-proofing effect with regard to oily stains.

Features and Benefits of Sevophob UFK-6

- ✓ Ecologically optimised fluorocarbon resin for exceptionally high water and oil repellent finishing
- ✓ Light beige emulsion with acidic reaction
- ✓ Density approx. 1.08 g/cm³
- ✓ pH approx. 3.0 – 5.0
- ✓ PFOA-/PFOS-free
- ✓ Only lower sensitivity to residues on the textile
- ✓ C6 fluorochemicals
- ✓ Solvent-free, non-flammable
- ✓ Can be diluted as required with cold soft water
- ✓ Hardness and alkali-sensitive
- ✓ No high condensation temperatures required
- ✓ Generally compatible with resin finishing products; preliminary tests are advisable
- ✓ Excellent hydrophobic and oleophobic effect
- ✓ Permanent effect with regards to dry cleaning
- ✓ Wash resistant
- ✓ Can be combined with optical brighteners; preliminary tests are advisable
- ✓ Wash resistant

Composition

Fluorocarbon resin

Ionogenic characteristics

Slightly cationic

Areas of application

Sevophob UFK-6 is an ecologically optimised repellent and is used for the permanent hydrophobic and oleophobic finishing of textiles from all common fibre materials and their blends. The finishing effects show excellent permanence with regard to household laundry and dry cleaning.

Due to the C6 fluorine chemicals used, finished materials can be labelled as PFOA/PFOS free.

Because of its high reactivity, **Sevophob UFK-6** condenses at low temperatures (> 120°C) and can therefore be used where it is not possible to achieve high condensation temperatures due to the material or machinery.

Application

Instructions for making solutions

Dilute **Sevophob UFK-6** with about twice the amount of cold water while stirring gently and then add to the application liquor, which is acidified (pH 5 - 6) with 1 ml/l of acetic acid.

In order to ensure that the appearance of the fabric is flawless, the article must be carefully pretreated and processing should be carried out with clean machines and equipment.

Residues of preparations, sizes, lubricants, softeners and alkalis, as well as residues of wetting and washing agents should be removed by appropriate washing and rinsing.

When using perfluorinated compounds in high-speed machines, care must be taken to ensure low shear resistance. High liquor turbulence should therefore be avoided.

To remove residual surfactants, we recommend the following treatment:

1.0 g/l	Lavan BL
	pH 5 - 6
40 - 60°C	20 min.
	then rinse cold

Quantities

Foulard/padding process

Cellulose fibres and mixtures	20.0 - 60.0 g/l	Sevophob UFK-6 Liquor pick-up approx. 60 - 80 % Dry 110 - 130°C Condense 150°C, 3 min. or 30 - 40 secs at 170 - 180°C
Synthetic fibres and mixtures	20.0 - 50.0 g/l	Sevophob UFK-6 Liquor pick-up approx. 60 - 80 % Dry 10 - 130°C Condense 150°C, 3 min. or 30 - 40 secs at 170 - 180°C

Variations in condensation temperature and duration are largely compensated by the high reactivity of **Sevophob UFK-6**. At the same time, this may result in a reduction in the condensation temperature or shortening of the condensation time.

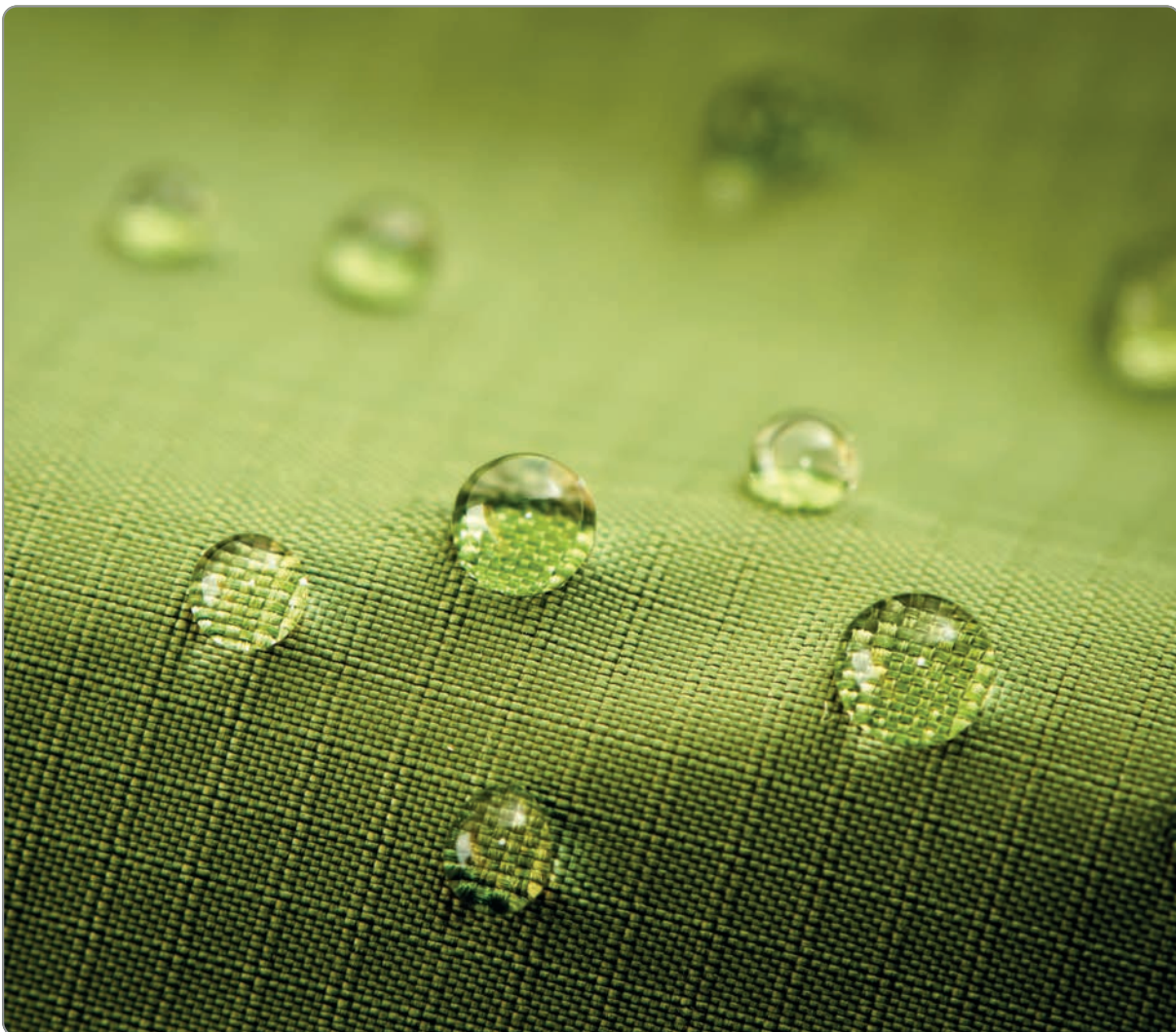
In the event of penetration problems we recommend the addition of

1.0 – 2.0 g/l **TC-Schnellnetzer FTI**

It is important to add penetration accelerator to the liquor before the fluorocarbon resin.

Sevophob UFK-6 is compatible with many cationic and non-ionic finishing agents. If ease of care and chintz effects on synthetic/cellulose fibre blends need to be achieved in combination with the fluorocarbon resin finishing, these are possible with most commercial high performance products. However, preliminary tests must always be carried out. We recommend the use of TC Reactant P/NF.

The use of silicone-based water repellent and softeners is not recommended, as these may reduce the stain-proofing effect with regards to oily stains.



Features and Benefits of Sevophob FWB-6

- ✓ Special fluorocarbon resin for permanent water and oil repellent finishing
- ✓ White-beige emulsion
- ✓ Density approx. 1 g/cm³
- ✓ pH approx. 3.5 – 4.5
- ✓ Based on C6 chemicals
- ✓ Solvent-free, non-flammable
- ✓ Can be diluted as required with cold soft water
- ✓ Hardness and alkali-sensitive
- ✓ Generally compatible with high-grade products; preliminary tests are advisable
- ✓ Excellent hydrophobic and oleophobic effect
- ✓ Permanent effect with regards to dry cleaning
- ✓ Wash resistant

Composition

Fluorocarbon resin

Ionogenic characteristics

slightly cationic

Areas of application

Sevophob FWB-6 is used for the permanent hydrophobic and oleophobic finishing of textiles made from cellulose and synthetic fibres.

The finishing effects achieved with Sevophob FWB-6 show excellent permanence with regard to household laundry and dry cleaning.

Textiles finished with Sevophob FWB-6 are free from PFOA/PFOS residues.

Application

Instructions for making solutions

Dilute Sevophob FWB-6 with about twice the amount of cold water while stirring gently and then add to the application liquor, which is acidified (pH 5 – 6) with 1 ml/l of acetic acid (60%).

In order to ensure that the appearance of the fabric is flawless, the article must be carefully pretreated and processing should be carried out with clean machines and equipment.

Residues of preparations, sizes, lubricants, softeners and alkalis, as well as wetting and washing agent residues, should be removed by appropriate washing and rinsing.

Application

To remove residual surfactants, we recommend the following treatment:

1.0 g/l **Lavan BL**
pH 5 – 6
40 – 60°C 20 min.
then rinse cold

Quantities

Foulard/padding process

Cellulose fibres 30.0 – 60.0 g/l **Sevophob FWB-6**
pH 5 – 6
liquor pick-up approx. 60 – 80 %
Dry
Condense 150 – 160°C,
2 – 1 min.

Synthetic fibres 20.0 – 50.0 g/l **Sevophob FWB-6**
pH 5 – 6
Liquor pick-up approx. 60 – 80 %
Dry
Condense 150 – 160°C,
2 – 1 min.

In the event of penetration problems we recommend the addition of

1.0 – 2.0 g/l **TC-Schnellnetzer FTI**

It is important to add penetration accelerator to the liquor before the fluorocarbon resin.

If the condensing temperature of at least 150°C can not be reached, it is possible to reduce it to 130 – 140°C with the addition of 10% **Sevophob-Aktivator BLT** based on the amount of FC resin.

If ease of care and chintz effects on synthetic/cellulose fibre blends need to be achieved in combination with the fluorocarbon resin finish, these are possible with most commercial high performance products. However, preliminary tests must always be carried out. We recommend the use of **TC-Reaktant P/NF**.

Slight yellowing or reduction of the degree of whiteness may occur when used on white goods.

TC-Bac products protect textile and wearer

Covid-19 shows us the enormous strain we are constantly exposed to. It is all the more important to protect yourself and take precautions early.

With the application of TC-Bac DURABLE CLEAN and TC-Bac FRESH, applied on PES, tests have now shown that these products are demonstrably effective against viruses in accordance with ISO 18184: 2019.

The tests were performed using a feline coronavirus that has structures and mechanisms reminiscent of SARS-Cov2, which facilitated conclusions about Covid-19.



TC-Bac DURABLE CLEAN

- ✓ Polymer compound with bound silver ions
- ✓ Well compatible with products commonly used in textile treatment, such as binders, softeners, and hydrophobic- / oleophobic finishings. (Preliminary tests are recommended in any case)
- ✓ Temperature-resistant in liquors up to 100°C and when drying / curing up to 200°C. Curing is generally not absolutely necessary. However, we recommend a drying process at 140°C.

Depending on the material and the desired effects, we recommend the following amounts:

Exhaust process:

Cotton	1.0 - 2.0 %	TC-Bac DURABLE CLEAN	
Polyamide	1.0 - 2.0 %	TC-Bac DURABLE CLEAN	pH=5.5 – 6.0 with Acetic acid
Polyester	2.0 - 3.0 %	TC-Bac DURABLE CLEAN	

If used in exhaust process, a temperature below 100°C with a minimum running time of 30min should be selected. Finally, the bath should be drained and the material dried. Subsequent rinsing should be avoided.

Padding process (calculated on 100% liquor pick-up):

Cotton	10.0 - 20.0 g/l	TC-Bac DURABLE CLEAN	
Polyamide	10.0 - 20.0 g/l	TC-Bac DURABLE CLEAN	pH=5.5 – 6.0 with Acetic acid
Polyester	20.0 - 30.0 g/l	TC-Bac DURABLE CLEAN	

In order to improve the properties, the amount used must be matched to the liquor pick-up and the material.

No curing is required for TC-Bac DURABLE CLEAN. A drying temperature between 140°C to 180°C is recommended for optimal fixation.

Areas of application

Application for all types of fibers (except peptide-based fibers), especially recommended blends thereof. Including textiles with constant direct skin contact.

Examples:

Apparel: Undergarments, outerwear, work, sport and outdoor clothing

Home textiles: Upholstery, curtains, bathroom textile sets, towels, kitchen towels, table cloths, wipes

Bedding: Mattresses, covers for pillows and duvets, bed sheets, fitted sheets, bed and pillow cases, molleton

TC-Bac FRESH

- ✓ Silane derived tetraalkylammonium compound in a high-boiling glycol ether
- ✓ Slightly cationic and compatible with most products commonly used in textile treatment, such as binders, softeners, and hydrophobic-/oleophobic finishings. (Preliminary tests are recommended in any case).
- ✓ Temperatures up to 180°C are suitable. TC-Bac FRESH is sufficiently fixed with a thermal curing at 160°C. This product is reactive bounded on the fiber.

Depending on the material and the desired effects, we recommend the following amounts:

Exhaust process:

Cotton	0.20	-	1.00	g/l	TC-Bac FRESH	pH=4.5 – 5.0
Wool	0.40	-	1.20	g/l	TC-Bac FRESH	with Acetic acid

If used in exhaust process, start at a temperature of 30°C, heat up to 60°C with a gradient of 3°C/min, than run for 30min. Afterwards cool down to room temperature with 3°C/min and drain.

Padding process (calculated on 100% liquor pick-up):

Cotton	2.0	-	12.0	g/l	TC-Bac FRESH	pH=4.5 – 5.0
Wool	2.0	-	12.0	g/l	TC-Bac FRESH	with Acetic acid

In order to improve the properties, the amount used must be matched to the liquor pick-up and the material.

Temperatures up to 180°C are suitable. TC-Bac FRESH is sufficiently fixed with a thermal curing at 160°C.

Areas of application

Textiles, including textiles used in permanent direct contact with the human skin. Application possible on CO, WO and blends of these fibers.

Examples:

Apparel: Undergarments, outerwear, work, sport and outdoor clothing

Home textiles: Upholstery, curtains, bathroom textiles, terrycloth towels, kitchen towels, table cloths, wash cloths

Bedding: Mattresses, pillow cases, duvet and quilt covers, bed linen, fitted bed sheets, mattress protectors

Storage

Sevophob HFK-8 should not be stored above 40°C or below 0°C. Product changes due to exposure outside of this range are not reversible. When stored properly (approx. 20°C) in closed containers, the product is stable for at least 6 months.

Sevophob FTU conc. should not be stored above 40°C or below 0°C. Product changes due to exposure outside of this range are not reversible. When stored properly (approx. 20°C) in closed containers, the product is stable for at least 6 months.

Sevophob FWU-8 should not be stored above 40°C or below 0°C. Product changes due to exposure outside of this range are not reversible. When stored properly (approx. 20°C) in closed containers, the product is stable for at least 6 months.

When stored properly in closed original containers below 40°C, **Sevophob FHK-6** can be stored for at least 6 months. Storage at higher temperatures can cause irreversible damage. Protect from direct sunlight. Furthermore **Sevophob FHK-6** should be protected against frost when stored. With prolonged storage, the product solidifies below 0°C and this can cause irreversible damage. Usability should be checked before use.

When stored properly in closed original containers below 40°C, **Sevophob UFK-6** can be stored for at least 6 months. Storage at higher temperatures can cause irreversible damage. Protect from direct sunlight. Furthermore **Sevophob UFK-6** should be protected against frost when stored. With prolonged storage, the product solidifies below 0°C and this can cause irreversible damage. Usability should be checked before use.

Sevophob FWB-6 can be stored for at least 6 months in closed containers at a temperature below 20°C. **Sevophob FWB-6** should not be stored above 40°C or below 0°C. Product changes due to exposure outside of this range are not reversible.

Storage stability of **TC-Bac DURABLE CLEAN** and **TC-Bac FRESH** is 12 months from delivery date in unopened original container.

Further instructions for safe handling can be found in the safety data sheet.

The information and recommendations on our products reproduced here are based on extensive research and on our current practical experience in textile finishing. These are to be considered as non-binding advice - also with respect to third party property rights and foreign laws - and do not exempt users from testing the product and procedures for suitability for their own use. In particular, we assume no liability if used for purposes not expressly stated in writing by us. We reserve the right to make technical changes during product development. In the event of damage, we refer to our General Terms and Conditions of Sale and Delivery, Section 7.

