

USER MANUAL



PurMop BLACK®

C4

Isolator Cleaning Tool

Handle & Frame



PurMop BLACK® C4 USER MANUAL

Isolator Cleaning Tool




CONTENTS

Congratulations, and thank you for purchasing a Hydroflex product. With our cleanroom cleaning solutions, we offer quality, safety and reliability right from the start. To ensure the quality of our solutions in the long term, we have summarized the most important instructions for using our PurMop BLACK® C4 in this user guide.

SYMBOL GUIDE

This manual is divided into function-based and task-oriented chapters. Warnings and important notes are presented separately from the general texts and marked with corresponding symbols. The symbol alone, however, cannot replace the text of the safety instructions.

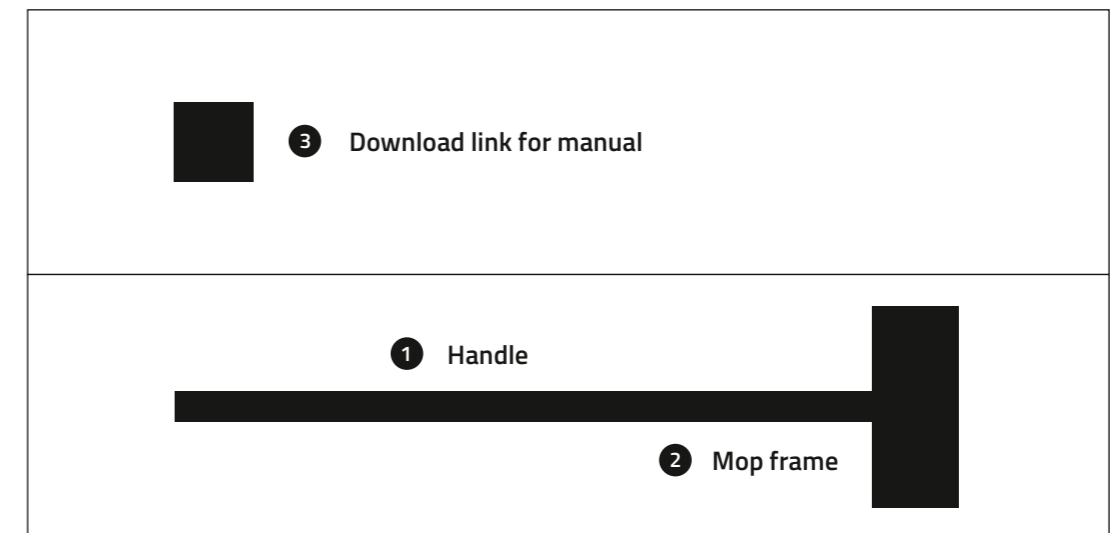
Therefore, please be sure to carefully read the entire text of the safety advice. The warnings and important notes in this manual are categorized as follows, with different symbols used to show the degree of danger involved.

	WARNING	There is a risk of injury or material damage if the instructions are not followed precisely or the conditions described are not observed.
	IMPORTANT	Indicates special conditions or additional important information on the topic in question.
	INFO	Contains additional information on properties/factors that make work easier or recommendations on the topic in question.

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BOX CONTENT

PurMop BLACK® C4 Isolator Cleaning Tool



PurMop BLACK® C4 GENERAL INFORMATION

Isolator Cleaning Tool

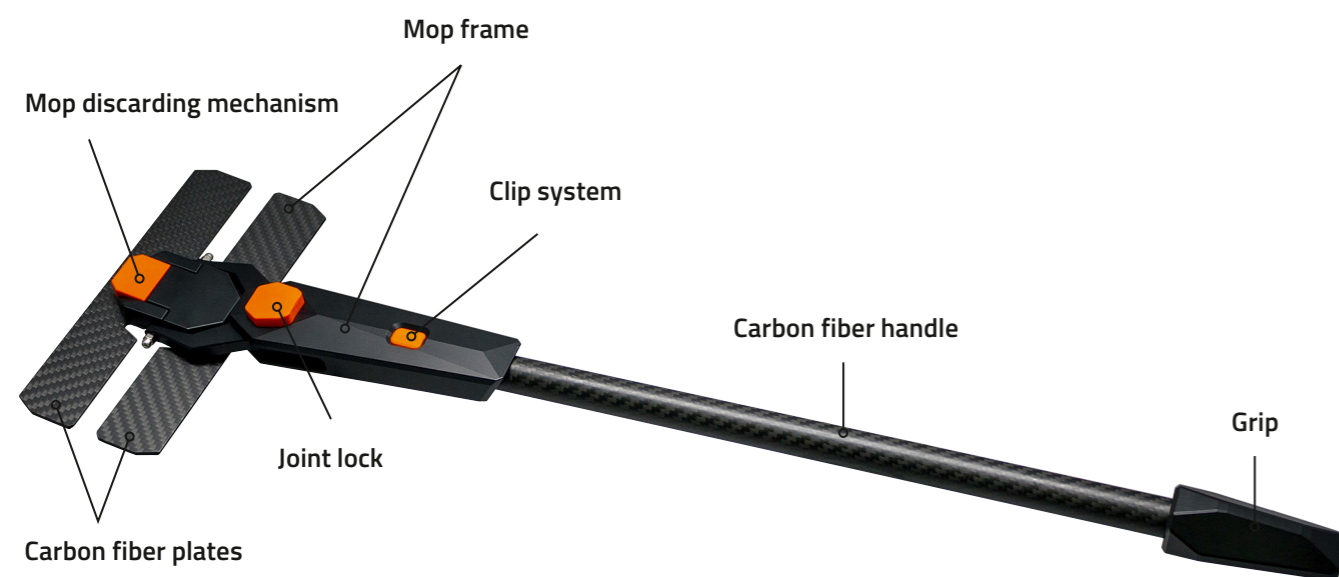


INFO: Before use, the PurMop BLACK® C4 must be prepared for cleanroom applications. For this, please refer to the "Cleaning and Maintenance Instructions" (chapter 4) and "Autoclaving Instructions" (chapter 5).



WARNING: There is a risk of crushing or injury if used carelessly or improperly.

COMPONENTS of PurMop BLACK® C4



PurMop BLACK® C4 FUNCTIONS

Isolator Cleaning Tool

MOP DISCARDING MECHANISM

Opening the mechanism



Press the button with your index finger to open the mechanism.



Closing the mechanism



Position the carbon fiber plates in the middle of the mop.



Press gently on the mop frame until the carbon fiber plates close.

JOINT LOCK

The mop frame can be used flexibly or fixed in the required position.

1. Press the joint lock button to open the lock.
2. Bring the mop frame into the desired position.
3. Press the joint lock button again to fixate the frame.



PurMop BLACK® C4 FUNCTIONS

Isolator Cleaning Tool

CLIP SYSTEM – Separate handle and mop frame

For cleaning the front window, the handle can be separated from the frame.

1. Press the button at the clip system and separate the frame from the handle.
2. To connect the frame again, put it over the mechanism and push gently until it locks again.

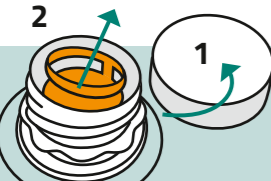
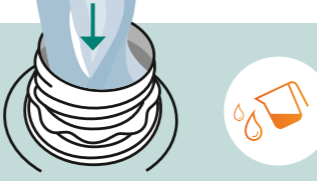
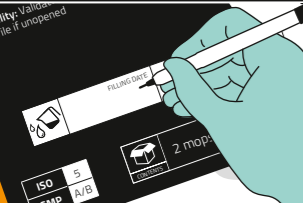
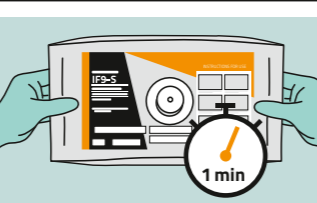

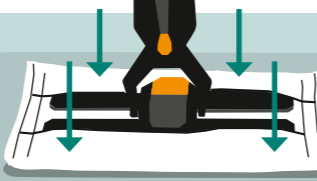


MOP SATURATION – with container

Saturate the mops in a container or alternatively use the Fillpack IF9-S (see below).

Product recommendation

MOP SATURATION – with PurMop BLACK® IF9-S (Cleanroom mops for isolator cleaning tool in a fillpack*)

STEP 1 	Unscrew lid (1) and remove sealing (2)	STEP 2 	Add 100 ml of fluid and close lid
STEP 3 	Note fluid used and filling date on label	STEP 4 	Wait for 1 minute
STEP 5 	Open pouch by tearing from edge	STEP 6 	Pick up mop with carbon fiber isolator cleaning tool

*Fillpack: chemical-resistant packaging for self-saturation, see also "Product Line" (chapter 6)

PurMop BLACK® C4 HOW TO USE

Isolator Cleaning Tool

MOP PICK-UP

1. Open the mop discarding mechanism.
2. Let the carbon fiber plates slip into the mop pockets.
3. Close the frame.

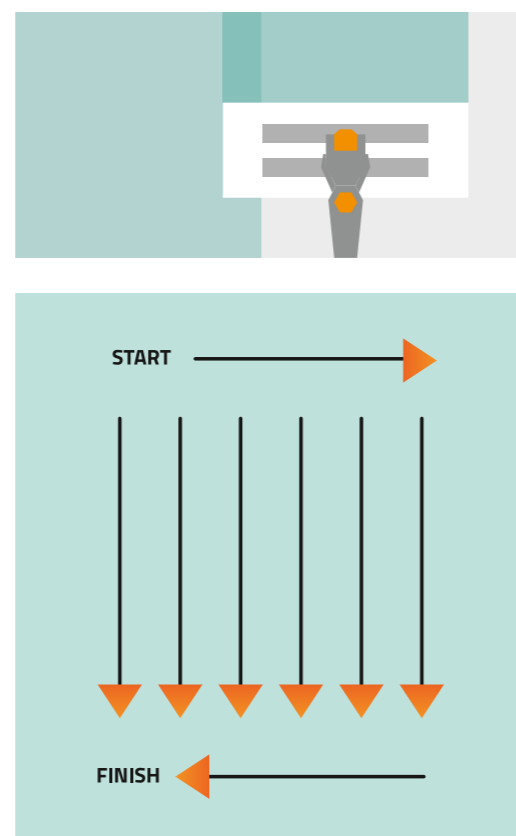


PurMop BLACK® C4

HOW TO USE

Isolator Cleaning Tool

We recommend the following cleaning scheme:



IMPORTANT: During the wiping process make sure that wipe paths overlap and that you follow an even wipe pattern.

First, wipe horizontally along the upper edge of the surface to be cleaned.

Then wipe downwards in parallel paths (laminar wipe method).

At the end, wipe horizontally once more along the bottom of the cleaned surface.

CEILING



BACKWALL



WORKING AREA



OUTSIDE THE ISOLATOR



PurMop BLACK® C4 HOW TO USE

Isolator Cleaning Tool

MOP DISPOSAL

1. Place the mop frame over the disposal container.
2. Open the mop discarding mechanism.
3. Release the mop into the container.



IMPORTANT: Please take care that new and used mops are not mixed up.



PurMop BLACK® C4

THE BENEFITS

Isolator Cleaning Tool

The perfect match: PurMop BLACK® C4 & PurMop BLACK® ID9-S

The C4: special features

The new PurMop BLACK® C4 offers two innovations that are particularly important when cleaning in isolators. Firstly, it enables contactless mop pick-up and discarding. Secondly, the handle can be separated from the frame, which makes cleaning easier.

The joint lock makes cleaning particularly ergonomic, as the frame can be adjusted and adapted to all positions.



ID9-S: New mop design*

The new pocket design prevents the mop from slipping during the wiping process and provides an even cleaning performance while requiring little effort.

The mop material specially developed for the BLACK Performance Line isolator cleaning tools ensures optimized liquid release and very good dirt absorption at the same time.



„Wings Technology“

Specially designed wings, integrated into each end of the mop, allow for effective cleaning of curvatures, coving and corners. The flexible, foldable wings adjust to fit the space, thus allowing ergonomic and safe cleaning of hard-to-reach areas.



*see "Product Line" (chapter 6)

PurMop BLACK® C4

CLEANING AND MAINTENANCE

Isolator Cleaning Tool

GENERAL INFORMATION

The PurMop BLACK® C4 is made of high-quality carbon fiber material (CFRP). To preserve its durability and ensure maximum functionality over a long time, we recommend that you observe the cleaning and maintenance instructions described below.



IMPORTANT: Gross disregard of the cleaning and maintenance instructions recommended in this manual may void the warranty.

1. GETTING STARTED

After delivery, the components should first be visually inspected. Before using the PurMop BLACK® C4 for the first time, you must carefully clean the components by hand to remove any dirt or residue. Only once you have cleaned the components, you can bring them into the cleanroom – in accordance with your internal cleanroom protocol (SOP).

2. CLEANING

First, disconnect the mop frame and grip from the handle. All components must be cleaned carefully after every use. A cleanroom-compliant wipe and pure water or alcohol should be used to clean the components.

3. DISINFECTION

The wipe/surface disinfection method should be used to disinfect the components. The facility's internal regulations for the disinfection of cleanroom equipment must be observed in accordance with the operator's cleanroom protocol. Please ensure that the disinfectant used does not react to the component material used (CFRP) – this must be checked in advance. It is essential that the components are cleaned thoroughly. Any disinfectant residue must be removed; we recommend using alcohol disinfectant with no additives.

4. AUTOCLAVING / STERILIZATION

For information on this topic, please refer to the "Autoclaving Instructions" (chapter 5).

5. STORAGE

Before storage, ensure that the components have been carefully cleaned without leaving any residue, disinfected/sterilized and dried.

The components should be stored in accordance with the facility's internal regulations to maintain hygiene and sterility.

6. MATERIALS / RESISTANCE

The components are made of high-quality carbon-fiber-reinforced plastic (CFRP) and PPSU. All surfaces offer excellent stability and a long service life, provided that they are not damaged or subjected to stress due to improper use (e.g. long contact time with aggressive chemicals or scratches that damage the surface of the product).

7. WARNINGS

Disinfectants containing acetone must not be used. Acetone has negative effects on the material properties (softening, deformation, decay).

CHEMICAL RESISTANCE

Please note: After each application of using chemicals, we recommend that you clean the components with an alcohol disinfectant to guarantee that the PurMop BLACK® C4 continues to function perfectly.

To ensure that the carbon fiber and PPSU isolator cleaning tools remain damage free even after long periods of contact with cleaning products and disinfectants, their chemical resistance has been verified in complex tests, and the materials have been consequently adapted. The high-performance plastic is resistant to regular wipe and wash disinfection and is also suitable for the long-term use of products containing peroxides and chlorides.

GROUP OF SUBSTANCES	REPRESENTATIVE TEST WITH	CONCENTRATES USED	CFRP RESISTANCE	PLASTIC RESISTANCE	MAX. RECOMMENDED CONTACT TIME
Quaternary ammonium compounds	QT	4,00 %	High resistance	High resistance	24 hours
Diamines	AN	4,00 %			
Alcohols	DE	70,00 %			
	Isopropanol	99,90 %			
Chlorine and organic or inorganic substances with active chlorine	Sodium hypochlorite	0,50 %			
		12,50 %			
Alkalis	Sodium hydroxide	10,00 %			
Acids	Phosphoric acid	8,50 %			
Hydroperoxide	Hydrogen peroxide	6,0 % - 0,4 %			
		6,00 %			
Ketone	Acetone	99,50 %	Medium resistance	Medium resistance	5 hours
			Low resistance	Low resistance	Use not recommended

This document contains reference values. These values can be influenced by processing conditions, modifications and environmental influences and do not exempt users from conducting their own tests. No legally binding assurance of specific properties or suitability for a concrete purpose can be derived from the details provided.

PurMop BLACK® C4

CLEANING AND MAINTENANCE

Isolator Cleaning Tool

CLEANING THE HANDLE AND FRAME

After use, make sure you first remove any residues – dirt or chemicals – from the cleaning tool.

After uncoupling, you can clean the handle and frame using an isopropanol-soaked wipe. We recommend a presaturated wipe with a mixture of alcohol and purified pharma water (70 % / 30 %).



Detach the frame [see also "Functions, clip system – separate handle and frame"(chapter 1)].



NOTE: In the event of heavy contamination with salty residues, we recommend cleaning the mop frame under running water.



Clean the carbon fiber plates and the plastic elements with a soft wipe presaturated with alcohol.



Clean the carbon fiber handle with a soft wipe presaturated with alcohol.

PurMop BLACK® C4

AUTOCLAVING INSTRUCTIONS

Isolator Cleaning Tool

RECOMMENDED PARAMETERS

The following parameters should generally be observed during the steam sterilization of the PurMop BLACK® C4:

121°C – 20 minutes

134°C – 5 minutes



IMPORTANT: No warranty is given for other types of sterilization or different autoclaving parameters.



INFO: Thoroughly clean before sterilization process, so that there are no residues on the surface.



INFO: Groups of components should preferably be dismantled before being autoclaved.



IMPORTANT: The components should not be stacked in order to avoid mechanical pressure during the sterilization process.

STEPS

1. Disconnect the handle, grip and mop frame. The discarding mechanism must be opened.
2. The handle, grip and frame must be placed in the autoclave separately. Place the frame with the opened mechanism on its side on the autoclave tray.
3. Start the autoclaving procedure. Make sure that the autoclaving parameters stipulated by Hydroflex (see left) are observed.



PurMop BLACK® C4

PRODUCT LINE

Isolator Cleaning Tool

SUITABLE MOPS

PurMop BLACK®

ID9-S

Cleanroom mops for PurMop BLACK® C4
Polyester-Microfiber

For saturation with container

- With 'wings' for simplified corner cleaning
- Contactless working thanks to new pocket design
- Microfiber with high/low structure for optimized cleaning performance
- Colour coding loop (as standard)



ID9-S [sterile] Item no. 2112034 ISO 5 | GMP A/B

PurMop BLACK®

IF9-S

Cleanroom mops for PurMop BLACK® C4
Fillpack (ready to fill with fluid)

Do-it-yourself: Fillpack for self-saturation

This version includes all the features of the ID9-S and enables the mops to be saturated directly in the packaging, see "How to se" (chapter 2):

- Suitable for saturating with the liquid of your choice
- Ready for use in just a few minutes – safe to use
- Packaging and mops are compatible with common bactericides, sporicides and cleaning agents



IF9-S [sterile] Item no. 2112050 ISO 5 | GMP A/B

PurMop BLACK® C4

DISPOSAL WARRANTY CONTACT

Isolator Cleaning Tool

DISPOSAL/WARRANTY

The packaging is made of materials that can be disposed of at local recycling facilities.

The PurMop BLACK® C4 is made of carbon-fiber-reinforced plastic (CFRP) and plastic components. In the interests of environmental protection, please pass on the C4 to an authorized disposal facility once it has reached the end of its product life. You can obtain information on waste collection facilities from the local authority responsible for your location. Recycling is a consequent part of the Hydroflex sustainability strategy. In Germany, we therefore offer takeback and recycling of our carbon products in cooperation with specialized partners.

We provide a 12-month warranty from the date of purchase, applicable to material and manufacturing defects in the PurMop BLACK® C4. The warranty does not apply:

- In the case of damages caused by improper use
- For wear parts
- To damages caused by the user
- As soon as the product has been dismantled/ repaired by a non-authorized service provider

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