





IMPORTANT

This manufacturer information is a constituent part of the product and consists of three interconnected and complementary documents. You will find units 1 and 2 under www.rofa.de, while the third part is available on the article itself.

We compiled and issued the information with due diligence and rigor. Nevertheless, we cannot assume any responsibility for the accuracy and integrity of the depicted data, irregardless of legal basis.

www.rofa.de	<p>Manufacturer information Part 1 PPE– Standards, Regulations and product labelling</p>	Before using our products, please read carefully the all manufacturer information sections.
	<p>Manufacturer information Part 2 Information for the user</p>	Save all sections of the manufacturer information in order to provide a third party with the relevant data related to the purchased equipment.
With the item	<p>Manufacturer information Part 3 Make specific information</p>	Please consider carefully the following information, as a support for the safe utilization of your Personal Protective Equipment (PPE).

Symbols:

	Caution sign for circumstances that might lead to injuries, and/or warning sign for obvious hazardous situations or possible risks
	References, tips or additional information

Manufacturer Information Part 2: Basic Information

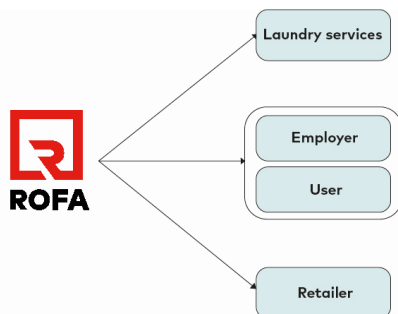
1 INTRODUCTION

Compliments for purchasing your new premium quality PPE.

Rofa's many years of experience as PPE manufacturer have a major impact in the garments production and manufacturing quality. Rofa is not a mere PPE manufacturer but is a vertical enterprise where the fabric is made, treated and produced. Herewith, rofa is able to overview it's raw materials, all from one source and under the same, unitary, quality assurance apparatus.

2 ESSENTIALS

The standards and the laws mention the PPE users; Rofa identifies for a finished PPE, the following paths toward the end-user:



The 3 parts of the manufacturer information contain important references for the PPE safe utilization. The PPE will only be delivered together with all the relevant documents respectively, these will be permanently available/accessible.



The Occupational Safety and Health Act compels the employer towards an active occupational safety. The overall responsibility remains in force even if the associated assignments are delegated towards third entities.

3 Risk assessment

According to the provisions of 89/391/EWG and the national operational safety regulation enactment (ArbSchG), the employer is bound to perform a workplace legally binding risk assessment. This will determine:

- Risk definition and magnitude for every workplace
- Labour conditions and
- Individual operator physical constitution

Exceptional work environments necessitate increased attention and if necessary, special regulations, e.g. for:

- Confined spaces
- High oxygen content
- Unusual temperatures
- Handling of dusty substances etc.

The risk assessment will be updated regularly (e.g. regulations revisions, workplace accident, adjustments of machinery and/or procedures).





The necessary PPE, in the appropriate protection class and quantities, is acquired in compliance with the valid, implemented and updated risk assessment outcome.

The appropriate PPE is an updated garment, compliant with the latest technical grade, able to reduce the hazard potential degree determined by the risk assessment, to the lowest possible, acceptable level.

4 PPE SELECTION







Selection criteria:

- CE-Marking
- Standards icons and performance classes
- Certificate (tested sample/prototype) respectively Declaration of conformity
- Functionality and appropriate Design
- Wearing comfort and workplace specific conditions
- Ergonomically aspects (fitting, weight, flexibility)
 - Fitting
(sizes tables available under www.rofa.de)
 - Proper sizing
 - not too tight, not too loose
 - not too short, not too long
 - Adequate freedom of movement
 - Easy to dress, easy to undress/disrobe

	The PPE must be individually fitted.
	It is forbidden to roll up a PPE. This could for instance cover the reflective stripes in the case of warning protection equipment.
	Heat and flame protection PPE must overlap adequately in order to provide the proper protection, even if ample movements are made.
	Creases on the garment outer layer might diminish the PPE protective capabilities. This could for instance provide the melted metal drops and chemical substances with folds to adhere to or even cover the reflective stripes.

5 INDIVIDUAL FITTING

If necessary, the PPE must be adjusted for each individual before utilization.

	Each adjustment will comply with the standards requirements, maintaining the clothing functionality and the certificate attested properties.
	A PPE alteration might determine a variation from the certified prototype. This could invalidate the certificate.
	Please contact rofa as manufacturer and certificate proprietor concerning the standards compliance and state of the art compliance, along with any necessary adjustments.
	The PPE adjustments are to be made by skilled craftsmen. This means only qualified and/or schooled professionals are allowed to complete such operations.
	It is essential that after each and every alteration of the multi standard PPE, it still permanently complies with all the combined requirements the standards enforce, according to the labelling
	In order to ensure the alterations outcome, an alteration process validation is recommended. This validation ascertains that the alteration procedure and execution accomplish the guaranteed protective feature.

Potential adjustments on new items:

- Shorten
- Supplementary reinforcements and knee pads pockets
- Additional pockets
- Additional reflective stripes
- Embroidered labels, transfers, embroideries
- Pockets removal

Example:

When shortening a warning protection PPE, one must consider the minimal background surface and the reflective stripes spacing to the hem. Minor alterations can prejudice and downgrade the performance class. (see Part 1 Chapter 4.11).

Detailed Information concerning individual items are available in the third part of the Manufacturer Information and under psa@rofa.de - rofa sewing leaflet

6 Guidance

The employer must provide the employees with extensive information regarding the PPE. Among others, information concerning the PPE type, purpose and safe handling.

Such minimal information must concern:

- Utilization according to the intended scope and purpose
- PPE dressing and disrobe
- Proper storage after use
- Damages identification (please refer to section 10)

7 PPE WEARING AND UTILIZATION

Regulations:

- Only use fully closed PPE.
- Use the PPE only according to the recommended scope and intended purpose.
- When working in risk areas, the icons tab will be inserted in the pocket - button closed.
- PPE will be used in the given outfit and if necessary, completed with further protection elements.
- Prior to each utilization, a visual and function test is to be performed
(see Part 2 Chapter 10)
- Each deficiency will be reported to the employer.
Use only PPE in perfect functional condition.
Dirt and/or sweat diminish the protective capabilities.



On site, the PPE will be fully functional.



All employees will wear the protective equipment over the entire working hours period.



The flame resistance will diminish if the PPE is soiled, e.g. if stained with grease. If the case, the equipment will not be used, under any circumstance.



It is prohibited to take off the PPE with electrostatic deflecting capabilities in explosion prone areas.

8 TRANSPORT AND STORAGE



The PPE will be hauled and stored in dry, dust-free, dark and UV free conditions. A proper storage will maintain the equipment protective properties for a long time.

Article specific information are available in the section 3

9 CARE

9.1 Essentials

Washing

Annotation to care instructions – see Part 1 Chapter 5.5.

General Information:

- Do not soak!
- The use of chlorine based bleach or oxygen bleaching is not allowed!
- Do not use fabric softener!
- Short spinning!



Periodically, the PPE will be washed, inspected and if necessary mended in order to maintain the full protective properties.



Heavy soiled and especially grease stained PPE will be washed repeatedly and if necessary, the prewash treated with wash bath intensifier. Please consider the manufacturer use instructions.



When using wash bath intensifier, the main concern is to avoid such aggressive stuff to prejudice the protection properties of the PPE. The wash bath intensifier must be thoroughly rinsed down. It is imperative to test such products individually for use on various PPE



Wash warning protection separately, to avoid colour or dirt transfer from other laundry.



Wash flame retardant PPE separately, to avoid the transfer of regular, combustible particles.



A maximal number of care cycles cannot be indicated, since this is not the single element influencing the clothing lifespan. Major impact elements are also the utilization frequency, mending, storage conditions, etc.



It is essential that after each washing and care procedure of the multi standard PPE, it still permanently complies with **all** the combined requirements the standards enforce, according to the labelling.



It is possible that during the first wash, remnants of fluorocarbon finish and other treatments, adhere to the other laundry.

Impregnation with a fluorocarbon product

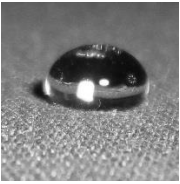

After regular utilization and periodical washing, the fabric and seams water repellent impregnation decreases and eventually wears off.

Therefore, a regular fluorocarbon impregnation of the respective equipment is necessary. Subsequently, an accurate, high temperature drying process activates the FC protective capabilities.

► Water droplet quick test:

Spray water droplets on the treated fabric.

Depending on the droplets behaviour, is determined the treatment consistency:

	Impregnation is sound: The water droplets are clear, limpid, spherical, and rolls down the fabric surface.
	Impregnation is wearing off: The water droplet is dark, dim, the contact surface is wide; the water starts to soak the fabric. The droplet rolls only partially off the surface, leaving a wet trail on the fabric.



This quick test will give no information concerning the chemicals, grease or dirt repellency. Nevertheless, a poor water repellency will always indicate a deficient impregnation. Under the circumstances, the garments must come out of use, impregnated and afterwards tested again.

Impregnation instructions under: psa@rofa.de



If chemical substances (acids, alkali, solvents etc.) affect an equipment, it is likely to notice that even if for the moment, the overall protective capability is in place, on a long term surveillance interval one will observe a damage propagation, as an apparent alteration of the respective spot or the onset of a puncture.

It is to expect that the protective capabilities in the respective area be diminished.

Drying and ironing

Do not overdry!



Do not contact iron the reflective stripes. Steam only.

9.2 Non industrial care (Domestic care)

Standards Requirements

EN ISO 6330:2012 regulates the care instructions for non-industrial washing and drying procedures. Fabric, trims and garments are tested under controlled condition according to this standard, both by the certified bodies, and the rofa in-house testing facility. Consequently, rofa labels carry the EN ISO 3758:2012 reference.

9.3 Industrial care

Standards requirements

EN ISO 15797:2018 regulates the care instructions for industrial washing and drying procedures. Fabric, trims and garments are tested under controlled condition according to this standard, both by the certified bodies, and the rofa in-house testing facility.

Consequently, rofa labels carry the EN ISO 30023:2012 reference.

! No matter what, the industrial washing suitability will be individually tested for each PPE class, because the wash procedures may vary in the industrial care field.
The complete care process (including impregnation) will be validated !

Washing and Drying

Care referrals under psa@rofa.de


! The drying process choice is directly reliant on the garment specifics and fabric, including reflective stripes, according to Manufacturer information Part 3.

10 FUNCTIONAL INSPECTION, IDENTIFICATION OF AGING AND PERFORMANCE DEFICIT; MENDING AND PATCH-UP

Prior to utilization, the user must visually inspect the equipment for damage. Industrial personnel might even have instructions issued by the relevant professional association concerning the periodical PPE examination. Such responsibility can be delegated towards the Care and Cleaning Service Providers, along with the mending and servicing assignment. Nevertheless, none of the above will cancel the employer liability under PPE Regulation.

The following parameters will be considered in order to determine the aging and performance deficit indicators. Actions implementation and fixing measures:







Detailed information regarding the mending procedures are available on request under psa@rofa.de

Features	<ul style="list-style-type: none"> ■ Detection and examination ▶ Appropriate measures and mending
1. Routine procedures	
Fabric/Material integrity 	<ul style="list-style-type: none"> ■ Damaged area (hole, abrasion, tear) ▶ mending with backstitch or patch over the damaged area
Fastening elements performance	<ul style="list-style-type: none"> ■ Defective fastener ▶ Replace
Soiling	<ul style="list-style-type: none"> ■ Soiled area ▶ Wash according to the suitable procedure and the specific item care instructions
Seam	<ul style="list-style-type: none"> ■ Damaged area ▶ Mend/repair
Retro-reflective stripes	<ul style="list-style-type: none"> ■ Soiled and damaged ▶ Ask rofa for a test set (Flashlight and conformity samples) ▶ If necessary, replace the damaged stripes
2. Weather protection	
Seams and membrane waterproofness	<ul style="list-style-type: none"> ■ Wear to check the waterproofness ▶ Mending only by rofa or textile care and cleaning providers

Liquids repellency for the outer layer and fluorocarbon impregnation	<ul style="list-style-type: none"> ■ No user self-test available ▶ Assess with a quick water droplet test ▶ In necessary, impregnate garments anew
Breathability – Water Vapour Permeability	<ul style="list-style-type: none"> ■ No user self-test available ▶ If in doubt, forward to rofa for testing (The garment will be destroyed in the process)
3. Cold protection	
Insulation efficacy / Heat conservation capacity	<ul style="list-style-type: none"> ■ Wear to check the insulation efficiency ▶ No reparation possible
4. Warning protection	
Minimal visible background fabric and reflective stripes	<ul style="list-style-type: none"> ■ Soiling and damages ▶ If in doubt, forward to rofa for testing
Background material colour and luminous intensity	<ul style="list-style-type: none"> ■ Soiling and damages ▶ If in doubt, forward to rofa for testing
Reflective stripes reflecting efficiency	<ul style="list-style-type: none"> ■ Soiling and damages ▶ Acquire a rofa test set (Flashlight and reference samples) ▶ If necessary, replace the reflective stripes
4. Heat and flame protection PPE	
Fabric/material strength	<ul style="list-style-type: none"> ■ No user self-test available ▶ If in doubt, forward to rofa for testing (The garment will be destroyed in the process)
Flammability	<ul style="list-style-type: none"> ■ No user self-test available ▶ If in doubt, forward to rofa for testing (The garment will be destroyed in the process)
Fabric/Material integrity	<ul style="list-style-type: none"> ■ Damaged area ▶ Limited mending possibility ▶ Mending with backstitch (underside must be patched) ▶ Patching the damaged area ▶ Ask rofa for instruction
Seam	<ul style="list-style-type: none"> ■ Damaged area ▶ Mend/repair with flame resistant sewing thread
5. Melted metal Code D and E	
Melted metal roll down	<ul style="list-style-type: none"> ■ No user self-test available ▶ If in doubt, forward to rofa for testing (The garment will be destroyed in the process)
Fabric/material integrity	<ul style="list-style-type: none"> ■ Damaged area ▶ Limited restoration ▶ Overlap, roof tile principle (flat repair) ▶ Contact rofa for information
6. Chemical protection	
Resistance to chemicals	<ul style="list-style-type: none"> ■ No user self-test available ▶ Assess with a quick water droplet test ▶ In necessary, impregnate garments anew with fluorocarbon

Fabric/Material integrity	<ul style="list-style-type: none"> ■ Damaged area ▶ Patching ▶ Mending with backstitch (underside must be patched) ▶ Garments will be impregnated anew with fluorocarbon
Seams, outer layer	<ul style="list-style-type: none"> ■ Damaged area ▶ Mend/repair with chemicals resistant sewing thread

Features	<ul style="list-style-type: none"> ■ Detection and examination ▶ Appropriate measures and mending
7. Electric arc protection	<ul style="list-style-type: none"> ■ No user self-test available ▶ If in doubt, forward to rofa for testing (The garment will be destroyed in the process)
8. Electrostatic charge deflection capability	<ul style="list-style-type: none"> ■ No user self-test available ▶ If in doubt, forward to rofa for testing

	Each and every repair will fully restore the original PPE functionality according to the certification standard. If such requirement cannot be fulfilled, the item will be withdrawn from utilization.
	The repairs will be made only by skilled craftsmen; this means only qualified and/or schooled professionals are allowed to complete such operations!
	One of the main concerns whenever mending, washing, altering a multi-standard PPE is to maintain the long lasting functionality of all the combined standards and protective capabilities according to the labelling !
	The user is bound to inspect the PPE for damages that might prejudice the equipment performance prior to utilization. This includes but is not limited to damaged reflecting stripes, holes, tears, damaged seams, flawed closing systems or heavy soiling! Ultimately, the user is solely liable for its own safety!
	The user will immediately inform the employer or the commissioner if he assumes that the provided PPE is not working condition.
	In order to insure the repairs compliance with the standards requirements, it is recommended to validate the mending/repairs procedures. This validation ascertains that the alteration procedure and execution accomplish the guaranteed protective feature.

11 DISPOSAL

The protective equipment can be disposed both directly to the disposal sites as well as household waste.

The PPE contaminated with hazardous materials will be disposed according to the legal provisions. If necessary, for particular cases please refer to the competent authority.

12 WORK EQUIPMENT AND CONSUMABLES

It is quite possible that a PPE needs to be mended and repaired during the regular life cycle. All the materials used in the process must comply with the standards requirements in order to restore the equipment original functionality and protection capability.

The following data are informative. The items can be replaced by similar products.

Product		Purpose	Supplier
Label	rofa	Customer CI	rofa
Original fabric	rofa	Repair	rofa
Flame retardant sewing yarn	Meta-Aramid, e.g. N-tech, Firefly	Repair	rofa Amann Coats
Chemicals resistant sewing yarn	Not flame retardant: 100% Polyester	Repair	rofa Amann Coats
	Flame retardant: N-tech or Firefly		
Trims (Buttons, Buckles, Zippers, etc.)	Depending on article	Repair	rofa
Impregnation kit	Depending on article	Impregnation for chemical and weather protection	rofa
Test kit for reflective stripes	rofa	Performance test	rofa
Rofa sewing leaflet	rofa	Information regarding standard compliant repairs	rofa
Reflective stripes	Depending on article	Repair	rofa

13 SERVICE

A custom made outfit is possible even when purchasing personal protective equipment. Rofa customers can opt for distinct features such as company logos, pockets, reinforced areas or reflective stripes; on request individually certified. Both complete manufacture and standard items alteration are available

Since the PPE must fit correctly the user, rofa customers are also provided with a fitting service.

14 LIMITED LIABILITY

Any kind of claims arising from damages caused by inappropriate utilization will not be considered. Rofa is not liable for:

- Articles alterations, whole or partial, made without rofa authorization. This includes also the consequences of such alterations.
- The repercussion of unauthorized statements concerning rofa articles.
- Improper care and repairs.

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