

## we create for all who protect us

Catalogue 2022





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Design, development manufacturing

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Needle resistant glov MoG/Guide CPN 6 MoG/Guide CPN 6 MoG/Guide CPN 62 MoG/Guide CPN 62 Flame resistant glove

Patrol Operator

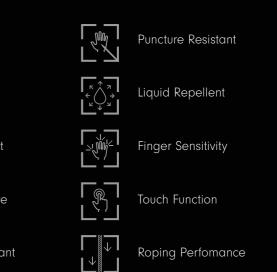
**Roping gloves** Rope Overglove Fast Rope

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www.MoGgloves.com



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design development manufacturing of

**STATE OF THE ART** MULTIFUNCTIONAL TACTICAL GLOVES





- Because we care. We listen. We create. 01. For all heroes who protect us. on paper.
- 02. Because we create comfort. maximum protection.
- Because we develop dedicated. 03. durable solutions.
- 04. Because we interact long-term. partners.
- Because we act sustainable. 05. ble way of doing business is a step in the right direction.









The backbone of our product range is based on co-creation in which we map out the specific and critical needs before even the first lines appear

Our main target is to combine sublime fitting with high comfort and

Focusing on tender and project business, our ultimate aim is to create

We favor long-term partnerships with both end users and involved

Every single step towards an environmental friendly and socially responsi-



Masters of Gloves originated in 2017 from the awareness that for many professional users facing serious threats on a daily basis (physical attacks with cuts and punctures, fires, disasters, accidents, etc.), there were insufficient or inadequate hand protection solutions. With years of experience in the (industrial) PPE sector, we understood perfectly how urgent and vital this issue was.

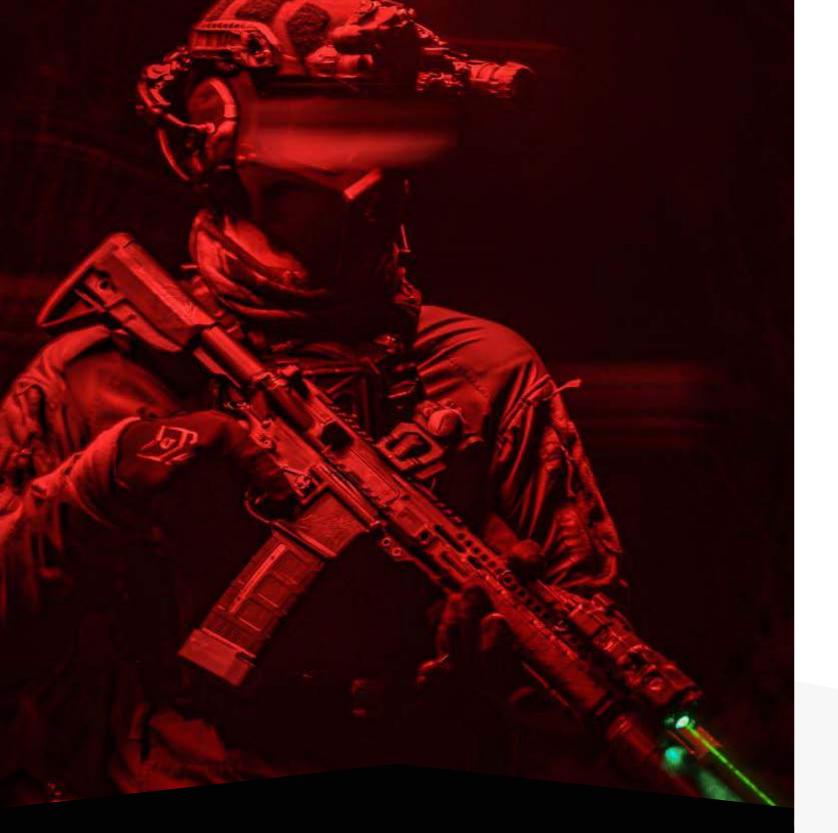
Even though strong brands offering such products have existed for decades, it is striking that many users are still unaware of their existence or are not satisfied with their user comfort. One striking example is needle puncture protection that ultimately led to the development and distribution of the Guide CPN gloves. In addition, several other protective gloves were launched, including the combat gloves for the NATO. After new



## THE DNA OF **MASTERS OF GLOVES**

requests kept arising, asking for very specific (tactical) performances, the brand MoG was established with one very clear baseline : we create for all those who protect us.

Our current range is 100% based on very particular questions from the field. Since we develop and produce in co-creation with our end-users, we are dedicated in addressing the real gaps in supply and bringing targeted solutions. MoG is, as you might call it, a Work In Progress, adding gradually new developments for both standard and niche oriented applications. This approach gives sufficient freedom to allow for adjustments during the design process so that the best result can be rigorously pursued.



## **Tactical gloves**



## OS OD Commando

### Synthetic 9102

This combat glove is perfectly suited for most tactical operations (handling weapons, searching operations, logistics, assembly ...) combining high protection and great wearing comfort. Our black Commando gloves carry a Nato Stock Number.











### **APPLICATIONS**

operations

•

Forcible entry

### TARGET GROUP

- - •
- •
- Weapon handling • Use of communication devices

• Various military / law enforcement

### **KEY FEATURES**

- Kevlar® carbon impact on knuckles with unique Flexpoint
- Air holes as impact protection and ventilation channels
- Slim fit High dexterity
- High finger sensitivity

- Security

### **STANDARDS**

- EN 388:2016
- EN 407:2004





• Armed / Special Forces Law Enforcement **Special Units Police** 

• EN 420:2003 + A1:2009

### SIZE





Our Target Shooting Glove Series have been developed together with several dedicated and heavy users within Special Forces during extensive training sessions in different environments.











### **APPLICATIONS**

- Various military / law
   enforcement operations
- Forcible entry
- Weapon handling
- Use of communication devices

### **KEY FEATURES**

- DexSuede technology
- Lightweight appearance and yet durable performance
- Slim fit
- Unique dexterity
- Extremely high finger sensitivity

#### SIZE

6 - 12

- Armed / Special Forces
- Law Enforcement

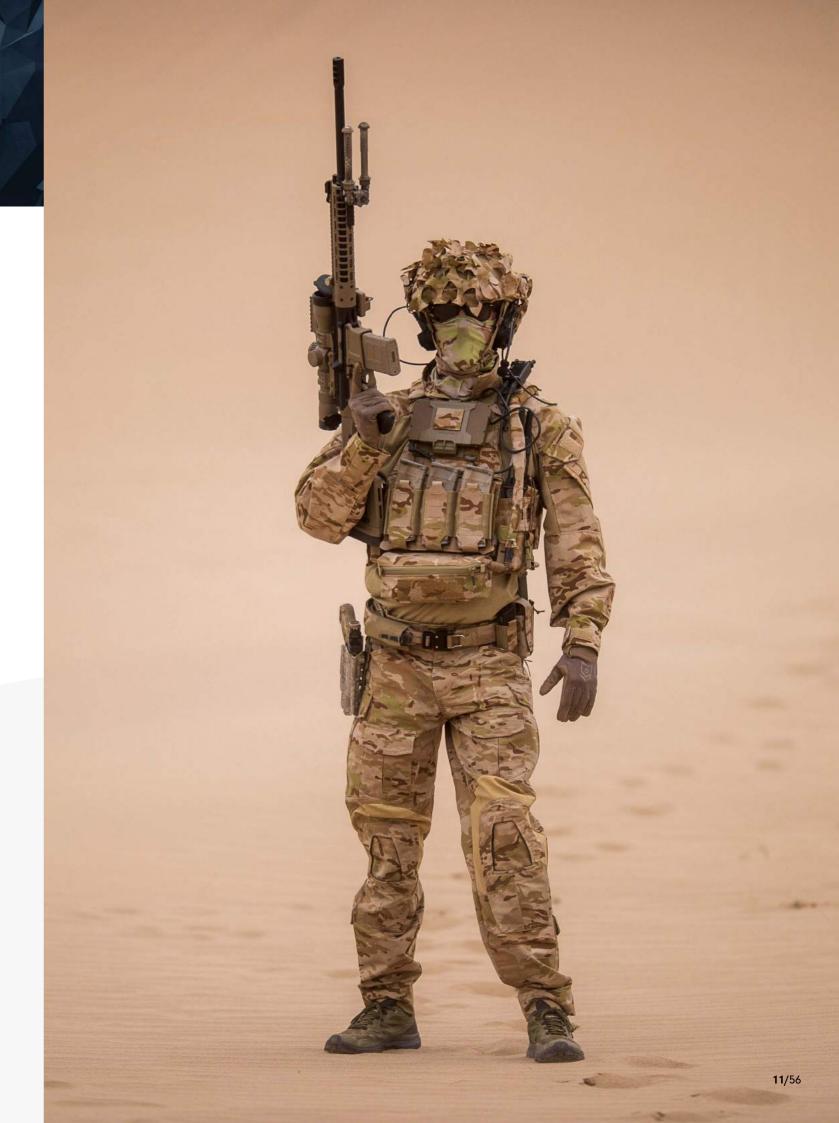
TARGET GROUP

- Security
- Customs

## STANDARDS

- EN 388:2019
- EN 407:2020
- EN ISO 21420:2020





# MoG ArmaSuede

## 457 mm

## THAN THE TACTICAL **STANDARD**

S MoG

OS OD Target High Abrasion 8109

Our Target Shooting Glove Series have been developed together with several dedicated and heavy users within Special Forces during extensive training sessions in different environments.

**APPLICATIONS** 

- Weapon handling
- Allround tactical operations
- Searches
- Patrolling

### **KEY FEATURES**

- ArmaSuede technology that is 8x stronger than other suedes
- Extremely high abrasion resistance and good grip
- Slim fit
- Unique dexterity •
- High finger sensitivity

### TARGET GROUP

- ٠
- •
- •
- Customs

### **STANDARDS**

- EN 388:2019

- Security

ArmaSuede. An unrivalled synthetic suede used in several of our MoG gloves. Engineered to outperform and outlast.

co-developed with MATERIALS





• Armed / Special Forces Law Enforcement **Special Units Police** 

• EN 407:2020 • EN ISO 21420:2020

#### SIZE



## **MoG ErgoShield**

# ERGONOMICAL PROTECTION

ErgoShield : 3D moulded TPR design. Ergonomical protection with total focus on dexterity and precision. A game changing technology you won't even feel.

OS OD Target High Abrasion ErgoShield 8110 Our Target Shooting Glove Series have been developed

together with several dedicated and heavy users within Special Forces during extensive training sessions in different environments.





### **APPLICATIONS**

- Weapon handling
- Allround tactical operations
- Searches ٠
- Patrolling ٠

### **KEY FEATURES**

- ErgoShield technology: 3D moulded TPR design without being felt
- Extreme high abrasion resistance and good grip
- Slim fit •
- Unique dexterity

- ٠
- •
- Security •
- Customs

### **STANDARDS**

- EN 388:2019 • EN 407:2020

- High finger sensitivity



### TARGET GROUP

• Armed / Special Forces Law Enforcement **Special Units Police** 

• EN ISO 21420:2020

#### SIZE





## Cut resistant gloves



## OS 2ndSKIN

8108B Cut resistant tactical glove with very snug fit for maximum dexterity and tactility during several operations.





#### **APPLICATIONS**

• Weapon handling

**KEY FEATURES** 

Patrolling •

#### TARGET GROUP

- •
- Security
- Customs •

### **STANDARDS**

- Cut resistant Kevlar® lining with maximum dexterity
- Slim fit leather fits your hand
- High finger sensitive •
- Light impact protection
- Touch function

- EN 388:2016

- EN 420:2011





• Armed / Special Forces **Special Units Police** 

### SIZE





## Needle resistant gloves





### CPN 6202

Discrete, black needle protection glove in synthetic leather based on highly approved CPN technology. Gives you the perfect blend between needle & cut protection. Perfect for frisking and shooting.





## OS MoG - Guide

### CPN 6203

Discreet, black needle protection glove in soft, durable full-grain goatskin based on highly approved CPN technology gives you the perfect blend between needle & cut protection. Perfect for frisking and shooting.









### **APPLICATIONS**

- Rescue operations
- Every operation with light risk of ٠ needles and glass
- Frisking •

#### **KEY FEATURES**

- High cut resistance
- Needle resistance •
- Light impact on knuckles •
- Durable and thin suede for good • finger sensitivity

#### TARGET GROUP

- Law Enforcement
- Security
- Waste management
- Rescue teams

- EN 388:2016
- EN 420:2003

## SIZE

i

- 6 13

- Fire brigades
- **STANDARDS**
- ASTM F2878-10

### **APPLICATIONS**

- Rescue operations
- Every operation with light risk of needles and glass
- Frisking

### **KEY FEATURES**

- High cut resistance
- Needle resistance
- Light impact resistance on the knuckles
- Soft full-grain goat skin leather

### TARGET GROUP

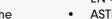
- Law Enforcement
- Security •
- •
- •

## **STANDARDS**

- EN 388:2016

### • ASTM F2878-10

- - - - EN 420:2003



EN 388

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Waste management Rescue teams Fire brigades

#### SIZE





### CPN 6204

Discrete, black needle protection glove in synthetic leather based on highly approved CPN technology. On the back of the hand cut resistant & flame retardant fabrics. Gives you the perfect blend between needle & cut protection and dexterity. Perfect for frisking and shooting.





## OS MoG - Guide

### CPN 6225

Needle protection glove with PU-dipped palm based on highly approved CPN technology in palm of hand which gives you a extreme grip on dry surfaces, feels very thin & good breathable.







SIZE

6 - 13

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i

EN 388

### **APPLICATIONS**

- Rescue operations
- Every operation with high risk of ٠ needles and glass
- Frisking ٠

### **KEY FEATURES**

- High cut & needle protection
- Light impact •
- Cut & flame retardant back of hand
- Silicone print in palm of hand • for a good grip in wet & dry conditions

#### TARGET GROUP

- Law Enforcement
- Security
- Waste management Rescue teams
- Fire brigades
- **STANDARDS**
- EN 388:2016
- EN 420:2003
- ASTM F2878-10

#### **APPLICATIONS**

- Rescue operations
- Every operation with high risk of • needles and glass

## **KEY FEATURES**

- PU dipped for high breathability
- High cut and needle protection
- Long slim-fit cuff avoids the intrusion of dirt, glass, etc.
- Extreme grip in dry conditions

### TARGET GROUP

- Law Enforcement
- Security ٠
- •
- Rescue teams •

### **STANDARDS**

- EN 388:2016

- ASTM F2878-10





Waste management • Fire brigades

• EN 420:2003

#### SIZE



## Flame resistant gloves









## OD Operator 9244G

Slim fit and comfortable pilot glove with flame-retardant and water-repellent properties.





## 





### **APPLICATIONS**

- Standard operations
- Handling weapons ٠
- Breaching / forcible entry
- Use of communication devices ٠
- Frisking

#### **KEY FEATURES**

- Flame retardant
- Touch function •
- Light impact protection •
- Cut resistant •

### TARGET GROUP

- Armed / Special Forces
- Law Enforcement
- Security
- Customs
- EN 388:2019
- EN 407:2020
- EN ISO 21420:2020

### SIZE

7 - 12

2433F

**APPLICATIONS** 

- All-round use by pilots during training, operations, etc
- Handling weapons
- Use of communication devices

### **KEY FEATURES**

- Flame-resistant Nomex® on back of hand
- Flame-retardant leather on palm of hand
- Slim fit
- Touchscreen function on index and thumb

- •

### **STANDARDS**

- EN 388:2016
- EN 420:2003
- EN 407:2004

- Short cuff

- CE i EN 388 EN 407

41X00X

## **STANDARDS**



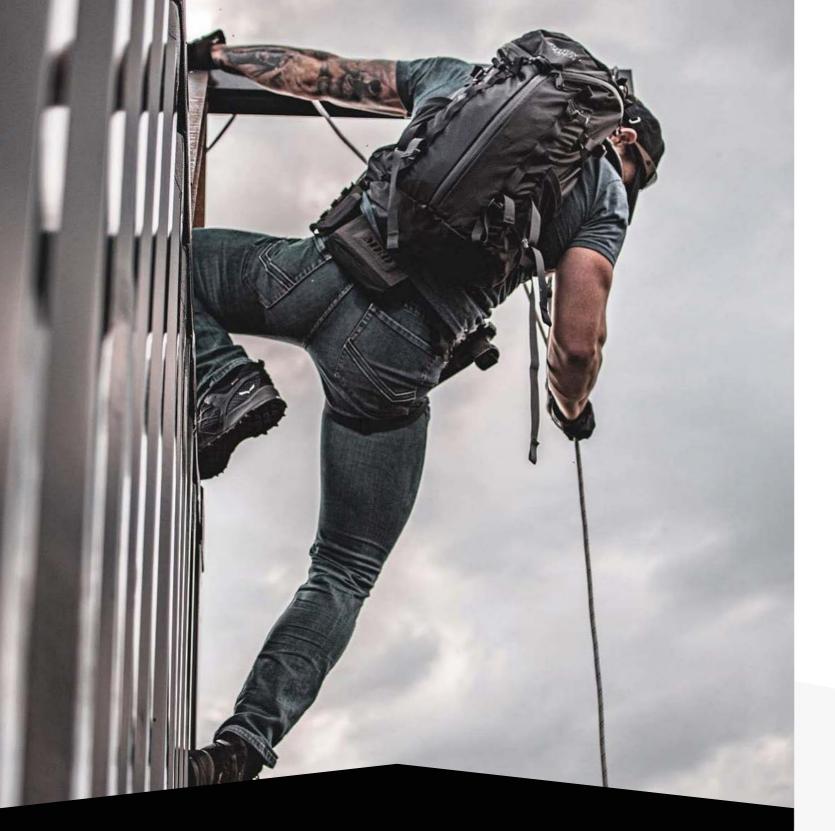


### TARGET GROUP

• Armed / Special Forces Law Enforcement

#### SIZE





## **Roping gloves**



## OD **Rope Overglove** 9164

Roping glove for abseiling or fast roping. Used as overglove above a tactical glove. Quick solution to operate weapons easily.





#### **APPLICATIONS**

#### • Descender gloves for working at height and abseil training / operations

• Can be used in combination with a thin tactical glove

#### **KEY FEATURES**

- High Abrasion
- Good protection against heat development
- Easy to attach to a belt
- Fast solution in combination with tactical glove

- •
- •

- **STANDARDS**
- EN 388:2019





#### TARGET GROUP

• Armed / Special Forces Law Enforcement **Special Units Police Rescue** operations

• EN 407:2004 • EN ISO 21420:2020

#### SIZE





9163 Our Fast Rope gloves have been developed together with the Instruction Group Rotary Wing (Royal Dutch Army) and are intended for professional and tactical use during fast roping training and operations.

## 





Masters of Gloves

#### **APPLICATIONS**

- Fast rope training and operations
- Descents up to 90 ft

#### **KEY FEATURES**

- Very high abrasion resistance
- Special index finger design for handling weapons
- Slim fit avoids twisted fingers
- Specific heat blocking construction enables multiple descents - can be used up to 90 FT

### TARGET GROUP

#### SIZE

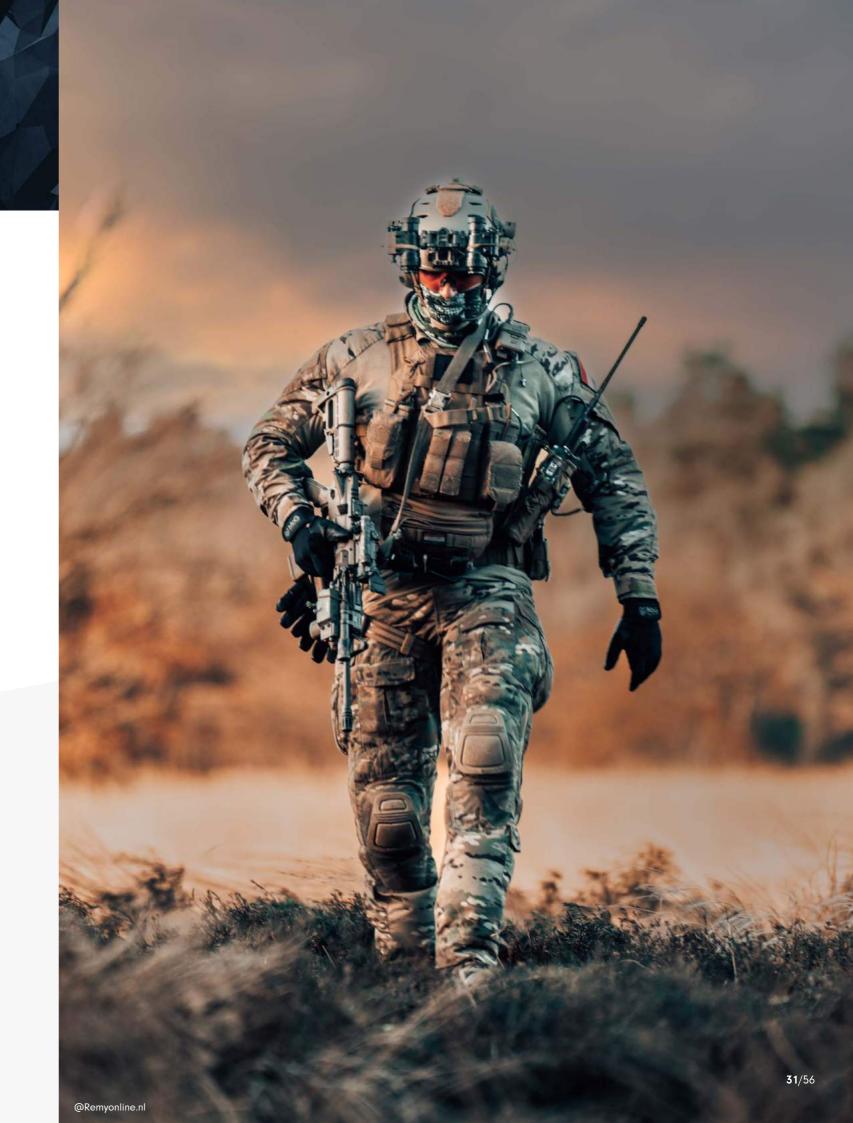
7 - 14

- Armed / Special Forces
- Special Units Police
- Rescue operations
- EN 388:2019

**STANDARDS** 

- EN 407:2011
- EN ISO 21420:2020







## Anti Riot gloves



## OS **MoG-Guide**

### CPN 6505

Discreet, black needle protection glove in goat grain leather based on highly approved CPN technology. Impact on fingers and back of hand, strategically placed for good flexibility and protection. Long cuff that fits your







## OD **Bataillo**

#### 8120

Anti-riot gloves for use in a law enforcement environment during demonstrations, events, etc. Perfect blend between dexterity and protection.





### **APPLICATIONS**

- Anti riot
- Frisking ٠
- Rescue operations
- Every operation with risk of • needle & glass

### **KEY FEATURES**

- High inpact on fingers and back of hand
- Needle protection •
- ٠ High cut resistance
- Long cuff that fit your sleeve and avoids intrusion of dirt or glass

#### TARGET GROUP

- Law Enforcement
- Security •
- Penitentiary Institutions •
- Waste management •
- Rescue teams

### **STANDARDS**

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- EN 388:2016 • EN 420:2003
- ASTM F2878-10

## SIZE 7 - 12

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i

EN 388

#### **APPLICATIONS**

- All common law enforcement operations
- Handling baton and shield

### **KEY FEATURES**

- Silicone and kevlar® in palm of hand for extreme grip
- resistant
- Impact on fingers and back of hand
- Good dexterity

## TARGET GROUP

crowd control)

## **STANDARDS**

- EN 388:2019
- EN 407:2020



## • 360° flame retardant and cut







SIZE

6 - 14

· Law enforcement (anti riot and

• EN ISO 21420:2020



## Cold/water resistant gloves





## **3-LAYER LAMINATION TECHNOLOGY**



#### How does it works?

With several traditional waterproof technologies the membranes are acting as a waterproof bag, to prevent water from entering into the glove. However, when water remains between the surface layer and the membrane, the gloves get soaked after limited time. This causes an uncomfortable feel, the gloves start weighing heavier and you have don't have the finger sensitivity you need, your hands cool down very quickly and you pull the liner out of the glove very easily causing twisted fingers.

With the 3-layer lamination technology used in our MoG Shelter gloves, the three existing layers (nylon, membrane and wool) are bonded into one solid layer. The seamless build-up ensures that rain, snow and wind are blocked at the surface, and the hands are kept dry and warm. The bonding technique gives these gloves a very thin and flexible fit, providing a unique finger sensitivity, and avoids that all layers come loose. Ultimately, you won't need to take off your gloves and you keep performing your activities comfortably with dry hands, without being hindered by rain or wind.



anti-bacterial effect



## OS **Shelter**

#### 4301

100% waterproof and windproof, stretchy, seamless glove that provides maximum dexterity and protects against the vast majority of weather conditions.





#### **APPLICATIONS**

- Professional, tactical and leisure use in a wide range of situations
- Provides protection against wind, rain and cold
- Precision work, outdoors, etc

#### **KEY FEATURES**

- 100% waterproof
- Ultra slim fit
- High finger sensitivity
- Great grip on wet/dry surface
- MoG 3-layer technology

- •
- ٠ •

- **STANDARDS**





### TARGET GROUP

• Armed / Special Forces Police, customs and security Civilian services, firefighters, etc Logistics and warehousing • Outdoor (cycling, hiking,...)

• EN 388:2019 • EN ISO 21420

### SIZE

S (7/8), M (8/9), L (9/10), XL (10/11)





100% windproof and water repellent glove with foldable flap offering protection against the vast majority of cold and rainy weather conditions.





## OD **Nordic Black**

### 5502B

Cold protective, windproof, cut resistant and water repellent gloves for professional use and precision work with foldable index and thumb.







### **APPLICATIONS**

- Daily use in cold/wet weather conditions
- In situations where, if necessary, • high finger sensitivity is still required

#### **KEY FEATURES**

- Foldable flap
- Free fingers for manipulating •
- Wind and water resistance ٠
- Heatblocker: heat stays in the • glove

### TARGET GROUP

- Armed / Special Forces
- Postal services and logistics •
- enforcement, security, etc
- EN 388:2019

#### SIZE

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i

EN 388

EN 511

X2X

- **STANDARDS**
- EN 511:2006

- 7 14
- Standard operations by law
- EN 420:2011

## **APPLICATIONS**

- Professional and tactical use in cold and wet weather
- Precision work
- Outdoor activities

#### **KEY FEATURES**

- Cut resistant
- Windproof
- Zipper pocket
- Foldable index & thumb

### TARGET GROUP

- •
- •
- Civil services •
- •

### **STANDARDS**

- EN 388:2019
- EN 511:2006





Armed / Special Forces Law Enforcement Logistics & warehousing • Leisure (hunting, hiking, ...)

#### SIZE





8113

Allround, flame retardant, cut resistant and water repellent winter glove with light impact protection and touch function.

## 





Masters of Gloves

## OD Genie

#### 9701

Water- and windproof glove with extended cuff offering protection against cold weather during (combat) engineering operations.

 $\overset{\kappa}{\leftarrow} \overset{\wedge}{\underset{{}^{\not\vdash}}{\overset{}^{\neg}}} \overset{\neg}{\rightarrow}$ 



### **APPLICATIONS**

- Standard operations in cold weather environments
- Handling weapons and frisking
- Breaching / forcible entry •
- Use of communication devices

### **KEY FEATURES**

- Flame retardant leather
- Cut resistant lining •
- Touch function •
- Light impact protection ٠
- Winter lining ٠
- Insulation layer on the back of • hand

### TARGET GROUP

- Armed / Special Forces
- Security
- Customs

**STANDARDS** 

- EN 388:2019
- EN 407:2020
- EN ISO 21420:2020

### SIZE

7 - 12

**APPLICATIONS** 

• All-round use in cold and wet weather and even under water, such as the construction and maintenance of (military) infrastructure

#### **KEY FEATURES**

- High abrasion resistance
- Extended cuff with waterproof membrane
- isolation layer for cold protection

Œ i EN 388 EN 407 Ŀ 41XXXX

## **STANDARDS**

• EN 388:2019

•

• EN 420:2011









### TARGET GROUP

 Combat engineering Civil services

#### SIZE





## **Rescue gloves**

## OS **RESQ**

#### 7901

Very robust and strong rescue glove with extreme protection levels, designed for firefighters and rescue teams, suitable for heavier rescue operations at accidents, (natural) disasters, etc. such as clearing debris, breaking up wrecks, etc. but also in various industrial applications. 



#### **APPLICATIONS**

**KEY FEATURES** 

- Rescue operations
- Extrication practices
- For industrial and mining applications

### TARGET GROUP

- Rescue teams •
- •
- Firefighters •
- Industry

### **STANDARDS**

- Extremely high cut protection: up to 65N
- Hi-Vis + reflective fingertips
- 3D moulded ergonomic design
- Turtle neck cuff avoids intrusion of dust or glass
- Pulltab with hole to fix the gloves to a carabiner
- Great grip on wet and dry surfaces





Emergency forces

• EN 388:2019 • EN ISO 21420:2020

#### SIZE





### CPN 6401

Heavyweight needle protection glove in synthetic leather based on highly approved CPN technology in palm of hand and light impact on knuckles.







MoG

Masters of Gloves

3

## OS MoG - Guide

#### CPN 6502

Heavier needle protection glove in synthetic leather based on highly approved CPN technology in palm and back of hand with impact on fingers.





#### **APPLICATIONS**

- Rescue operations
- Every operation with high risk of ٠ needles and glass

#### **KEY FEATURES**

- Extremely high cut resistance
- Needle protection
- Hi-vis back of hand ٠
- Light impact protection on ٠ knuckles

#### TARGET GROUP

- Law Enforcement
- Security •
- •

## SIZE

8 - 14

CE

i

EN 388

- Rescue teams •

## **STANDARDS**

- EN 388:2016

- Fire brigades
- Waste management

- EN 420:2003
- ASTM F2878-10

#### **APPLICATIONS**

- Rescue operations
- Breaching •
- Every operation with high risk of needles and glass

#### **KEY FEATURES**

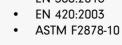
- · Extremely high cut resistance
- Impact protection on the back of the fingers
- Long slim-fit cuff avoids the intrusion of dirt, glass, etc.

### TARGET GROUP

- Law Enforcement
- Security ٠
- Fire brigades •
- •

## **STANDARDS**

• EN 388:2016







Waste management Rescue teams

#### SIZE





## Firefighter gloves







### which blocks water at the outer layer of the glove. Features a long cut-resistant Kevlar® cuff.

## 



## OS Fajro 7101-L - 7102-L

Extreme thin firefighter glove with lamination technology which blocks water at the outer layer of the glove. Features a cut-resistant velcro closure.





#### **APPLICATIONS**

- Firefighting
- Interventions •
- Training

### **KEY FEATURES**

- Laminated H-dry technology
- Blocks water at the surface
- Slim fit good dexterity •
- Long cuff made of cut-resistant Kevlar®

#### TARGET GROUP

- Fire brigades
- Rescue •
- **STANDARDS**
- EN 659+A1
  - EN 420
    - EN 388:2016
    - EN 407:2004

### SIZE

6 - 13

CE i EN 388 EN 407 3543D 4242XX

#### **APPLICATIONS**

- Firefighting
- Interventions
- Training

### **KEY FEATURES**

- Laminated H-dry technology
- Blocks water at the surface
- Slim fit good dexterity •
- Features a cut-resistant velcro closure

### TARGET GROUP

- Fire brigades
- Rescue •
- **STANDARDS**
- EN 659+A1 • EN 420
- EN 388:2016
- EN 407:2004





### SIZE



## **STANDARDS**

Masters of Gloves works in an innovative way and, where possible, we use materials or technologies that make a real difference with traditional products. Or we incorporate elements from other sectors such as sports or industry, to obtain higher comfort or protection levels. With due attention to indispensable values such as ecology and sustainable enterprise.

And finally, all or our gloves are tested and certified according to the European EN standards for PPE (2016/425 regulation), including standards such as EN ISO 21420, EN 388, EN 407, EN 511 or EN 659 to name a few.

## **STANDARDS**



#### CATEGORY 1

Gloves in this category are intended to protect the user from minimal injuries that might occur during for example washing, dishing but also from hot objects where temperatures are below +50C. Also suitable for less heavy gardening and other work where risk for lighter injuries.

#### CATEGORY 2

This category of gloves are intended to protect the user from injuries that are not classified like minimal nor very high. The gloves must be marked with a pictogram showing the gloves protection properties and are tested according to the standard EN388, mechanical protection, at an accredited test institute. All category 2 gloves are validated and type certified by a Notified Body to show the validity of protection.

#### CATEGORY 3

Gloves in this category protects against risks that may cause very serious consequences such as death or irreversible damage to health. The gloves must be marked with pictograms showing the gloves protection properties and must be tested at an accredited test institute. They must also be validated and certified, for both type and production control, by a Notified Body to show the validity of protection. Chemical protection gloves are all category 3 but also heat protection can be classified to this category.



EN 420:2003

#### **PROTECTIVE GLOVES - GENERAL REQUIREMENTS AND TEST METHODS**

This standard defines the general requirements valid for all protective gloves and sets requirements for glove marking. The glove itself shall not be a risk to wear or cause injuries to the user. The glove material shall have a pH value between 3,5 and 9,5. The Chrome VI level in the glove leather must stay at 2,9 mg/kg or below. If the glove contains any substances known to cause allergic reactions, it shall be stated in the product information. The glove sizes are standardized according to minimum length.

EN 420:2003 has no pictogram.



#### PROTECTIVE GLOVES AGAINST COLD

In cold environments it is extra important to protect the hands from cold burns. This standard measure how well the glove can withstand both convective cold and contact cold. In addition, water permeation is tested after 30 minutes.

EN 511:2006

The first figure shows how well the glove protects against convective cold (performance level 0-4) The second figure shows how well the glove protects against contact cold (performance level 0-4) The third figure shows the glove protection against water penetration (performance 0 or 1 where 0 indicates "water penetration after 30 minutes" and 1 indicates "no water penetration after 30 minutes")



└─ 3. WATER PERMEABILITY - 2. CONTACT COLD 1. CONDUCTION COLD



EN388:2016

#### PROTECTIVE GLOVES AGAINST MECHANICAL RISKS

According to this standard, characteristics such as abrasion resistance, cut resistance, tearing strength, puncture resistance and impact protection are tested. In conjunction with the pictogram, four numbers and one, or two letters, will be displayed. These signs indicate the performance of the glove.

#### **1. ABRASION RESISTANCE**

The material is subjected to abrasion by a sandpaper under a determined pressure. The protection level is indicated on a scale of 1 to 4 depending on the number of turns required until a hole appears in the material. The higher the number is, the better the resistance to abrasion.

#### 2. CUT RESISTANCE, COUP TEST

The cut protection is tested. A knife is passed over the glove material until it cuts through. The protection level is given by a number between 1 and 5, where 5 indicates the highest cut protection. If the material dulls the knife during this test, the cut test ISO 13997(TDM test) shall be performed instead, see point 5.

#### **3. TEARING STRENGTH**

The force required to tear the glove material apart is measured. The protection level is indicated by a number between 1 and 4, where 4 indicates the strongest material.

#### **4. PUNCTURE RESISTANCE**

Based on the amount of force required to puncture the material with a tip. The protection function is indicated by a number between 1 and 4, where 4 indicates the strongest material.

#### 5. CUT RESISTANCE, TDM TEST ISO 13997

If the knife gets dull during the coup test, see point 2, this test shall be performed instead. The result is given by a letter, A to F, where F indicates the highest level of protection. If any of these letters is given, this method determines the protection level instead of the coup test.

#### ISO 13997:1999 - Determination of resistance to cutting by sharp objects

An alternative cut test recommended for cut protection gloves. Shall be used in EN388:2016 for cut protection gloves where the cut material dulls the cutting knife during testing. A knife cuts with constant speed but increasing force until breakthrough of the cut protection material. Level of protection is given in Newton, the force needed for cut through at 20mm cut length.

#### 6. IMPACT PROTECTION

If the glove has an impact protection, this information is given by the letter P as the 6th and last sign. If no P sign, no impact protection is claimed.

#### EN 388:2003

This is the old version of the standard against mechanical risks. The differences compared to the 2016 version are the paper grid in the abrasion test and how to perform testing of cut resistant fibers. Also not applicable to test impact protection. There are still many protective gloves on the market labeled according to the old version of this standard. These are as good to use as the new marked gloves. Important to understand is: it's not the gloves performances that has changed. It is the way of testing the performances that has changed!





EN 407

#### PROTECTIVE GLOVES AGAINST THERMAL RISKS (HEAT AND/OR FIRE)

This standard specifies demands and test methods for protective gloves that shall protect against heat and/or fire. The numbers given besides the pictogram indicates the gloves performance for each test in the standard. The higher number the better performance level.

#### **1. FIRE PROPERTIES OF THE MATERIAL**

The ignition time and how long the material glows or burns after ignition is measured in this test. If the seam comes apart after an ignition time of 15 seconds, the glove has failed the test.

#### 2. CONTACT HEAT

The glove is exposed to temperatures between +  $100^{\circ}$ C to +  $500^{\circ}$ C. Then it is measured how long it takes for the inner side of the glove to become  $10^{\circ}$ C warmer than it was from the beginning (about 25 ° C degrees). The glove must withstand the increasing temperature of maximum  $10^{\circ}$ C for at least 15 seconds for an approval.

#### **3. CONVECTIVE HEAT**

Here it is measured how long it takes to increase the inside temperature of the glove with  $24^{\circ}$ C, using a gas lubrication (80kW / m2).

#### 4. RADIANT HEAT

The average time is measured for a heat permeation of 2.5kW / m2.

#### 5. SMALL SPLASHES OF MOLTEN METAL

The test is based on the number of drops of molten metal that generates a temperature increase between the glove material and the skin with 40°C.

#### 6. LARGE QUANTITIES OF MOLTEN METAL

A PVC film is attached to the back of the glove material. Molten iron is poured onto the material. The measurement consists of how many grams of molten iron required to damage the PVC film.



#### EN 407:2004 1234<u>56</u>

└─ 6. LARGE QUANTITIES OF MOLTEN METAL

— 5. SMALL PLASHES OF MOLTEN METAL

- 4. RADIANT HEAT
  3. CONVECTIVE HEAT
- 2. Contact heat 1. Fire properties of the material



#### PROTECTIVE GLOVES FOR FIREFIGHTERS

A specialist standard for gloves used in firefighting that references test procedures from EN 420, EN 388 and EN 407 plus other specific tests for properties such as resistance to water and chemical penetration.

A1:2008

#### ELECTROSTATIC PROPERTIES

The EN ISO 1149 standard specifies a test method for materials to be used in the production of protective clothing (or gloves) with electrostatic dissipation for preventing incendiary discharge.

## WE LIKE YOUR STORY

Do you share the idea that protecting yourself (and your hands!) is a first major step to protect others as well? Are you involved in protecting citizens in your neighborhood or abroad, during everyday operations or missions? Are you involved in a specific way by supporting, documenting or sharing and caring about protecting lives?

Well then, tell us more about your project/story! We just like stories that show how important it is to have the right gloves.

## LET'S KEEP IN TOUCH







Masters of Gloves

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R&D and Sales Office Driekerkenstraat 23A | 8501 Kortrijk | Belgium +32 (0)56 94 68 99 | mog@MoGgloves.com

Admin Office Veluwehaven 91 | 3433PW Nieuwegein Netherlands

MoG Lab Johanneslundsvägen 12 194 61 Stockholm – Upplands Väsby Sweden



www.MoGgloves.com