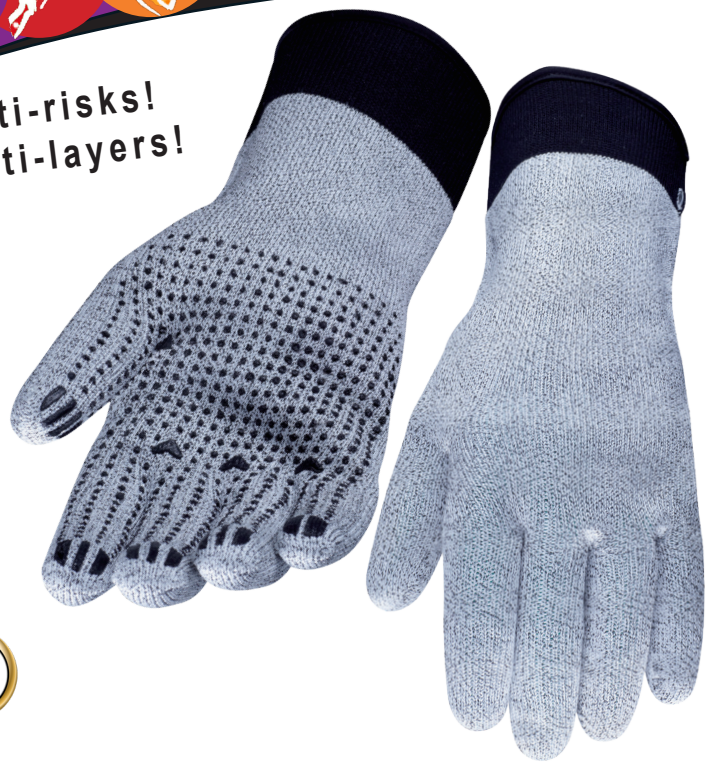

ISO 9001

>> Type of use (*)

Given their unique multi-layer design, these gloves can be used in the chemical industry, for industrial cleaning and maintenance, in the sheet metal industry, for sorting waste, cutting aluminium strips, metal rolling, stamping and assembly ...

>> Technical features

- **Pattern:** multi-layers technology.
  The outer layer of high density polyethylene (HDPE) provides excellent protection against mechanical risks.
  The insertion of an intermediate layer provides in nitrile provides protection against certain chemicals.
  The inner layer of cotton, associated to the other layers, allows protection against contact heat.
  Finally, the palm of the glove is coated with nitrile dots.
- **Sizes/ Color:** 9 (Black / grey / red) 10 (Black / grey).
- **Length:** 300 mm (**).
- **Packing:** - carton of 72 pairs.
  - bundle of 6 pairs.

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(**) average value

>> Advantages

- High requirement in the choice and quality of raw materials.
- The unique design of this glove allows numerous uses in various activities for excellent protection (cut level F).
- Despite its unique design, this glove is very thin and flexible and allows fine handling.
- Nitrile dots on palm allow excellent grip for easy handling.
- The inner cotton layer brings you great comfort and facilitates the absorption of perspiration.
- The **ISO 9001 / ISO 14001** certified production guarantees the reliability / regularity of the production and the control of the environmental impact.

chemical protection

Cut Protection

Protection against heat

>> Conformity

This glove has been tested according to the following European standards:

- **EN420 : 2003 +A1 : 2009.** Protective gloves - General requirements and test methods.
- **EN388 : 2016.** Protective gloves against mechanical risks.
- **EN ISO 374-1 : 2016**. Protective gloves against dangerous chemicals and micro-organisms.
  Part 1: Terminology and performance requirements for chemical risks.
- **EN 374-2 : 2014.** Protective gloves against dangerous chemicals and micro-organisms.
  Part 2: Determination of resistance to penetration.
- **EN 16523-1 : 2015.** Determination of material resistance to permeation by chemicals.
  Part 1: Permeation by liquid chemical under conditions of continuous contact.
- **EN 374-4 : 2013**. Protective gloves against chemicals and micro-organisms.
  Part 4: Determination of resistance to degradation by chemicals.
- **EN ISO 374-5: 2016.** Protective gloves against dangerous chemicals and micro-organisms.
  Part 5: Terminology and performance requirements for micro-organisms risks.
- **EN 407: 2004**. Protective gloves against thermal risks (heat and/or fire).

EN388 : 2016
4 X 4 4 E
EN ISO 374-1: 2016/ TYPE B
A K L
EN ISO 374-5: 2016
EN 407: 2004
X 1 X X X X
CE 0598
Cat III

It complies with **European Regulation (EU) 2016/425** on Personal Protective Equipment **(PPE)**. **Category III.**
EU type examination certificate (**module B**) issued by **SGS Fimko Oy.** Notified body **n°0598.**
The PPE is subject to the conformity assessment procedure based on quality assurance of the production process (**Module D**) set out in Annex VIII (Category III) under surveillance of **SGS Fimko Oy.** Notified body **n°0120.**
Download the EU declaration of conformity on: **http://docs.singer.fr**

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(*) Type of use is given as a guide only. It is to the end user to check whether the product is suitable or not for the intended use. Before any use, read carefully the instructions enclosed with the product. Issue LS 2019_03_12.

EN 388: 2016. Protective gloves against mechanical risks

Mechanical data. Information about levels.	Level 1	Level 2	Level 3	Niveau 4	Level 5	Levels ▼
Abrasion resistance (number of cycles)	100	500	2000	8000	-	**4**
Blade cut resistance (index)	1,2	2,5	5,0	10,0	20,0	**X**
Tear resistance (in Newtons)	10	25	50	75	-	**4**
Perforation resistance (in Newtons)	20	60	100	150	-	**4**

Cut resistance (as per EN ISO13997) (TDM test)	Level A	Level B	Level C	Level D	Level E	Level F	Level
	2	5	10	15	22	30	**E**

«X» means that the glove has not been submitted to the test.

EN 388 : 2016

4 X 4 4 E

EN ISO 374-1: 2016 / TYPE B.

Protective gloves against dangerous chemicals and micro-organisms.
Part 1.Terminology and performance requirements for chemical risks.

EN ISO 374-5 : 2016.

Protective gloves against dangerous chemicals and micro-organisms.
Terminology and performance requirements for micro-organisms risks.

EN ISO 374-1 : 2016 / TYPE B	EN ISO 374-5 : 2016
	
A K L	

Chemicals ▼	Code ▼	Class ▼
Methanol	**A**	**2**
40% sodium hydroxyde	**K**	**6**
96% Sulphuric acid	**L**	**3**

Type B gloves are gloves that have passed
i) penetration test as per EN374-2:2014 (water leak & air leak test)

ii) achieved at least **Level 2** (**more than 30 min** breakthrough time) for chemical permeation test as per EN16523-1:2015 against minimum **3 chemicals** from the list of 18 test chemicals on Table 2 of EN ISO 374-1:2016.
The 3 tested chemicals are represented by their code letter and marked under the pictogram and

iii) have performed chemical degradation test as per EN374-4:2013 for each chemical claimed and the results are as reported here.

EN 374-4: 2013.

Protective gloves against chemicals and micro-organisms.
Part 4. Determination of resistance to degradation by chemicals.

Chemicals ▼	Code ▼	Degradation ▼
Methanol	**A**	**73,9%**
40% sodium hydroxyde	**K**	**8,6 %**
96% Sulphuric acid	**L**	**72,9 %**

EN ISO 374-1: 2016

Chemical Permeation Performance levels

Measured breakthrough time (min)	Permeation performance level
> 10 min	Class 1
> 30 min	Class 2
> 60 min	Class 3
> 120 min	Class 4
> 240 min	Class 5
> 480 min	Class 6

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EN 407 : 2004. Protective gloves against thermal risks (heat and/or fire)

EN 407: 2004		Thermal data (tests)	Performance levels chart				
			1	2	3	4	Levels ▼
 X 1 X X X X	a1	Burning behaviour	≤ 20s	≤ 10s	≤ 3s	≤ 2s	X
	a2		No requirement	≤ 120s	≤ 25s	≤ 5s	
	b	Contact heat	100°C ≥ 15 s	250°C ≥ 15 s	350°C ≥ 15 s	500°C ≥ 15 s	1
	c	Convective heat	≥ 4 s	≥ 7 s	≥ 10 s	≥ 18 s	X
	d	Radiant heat	≥ 7 s	≥ 20 s	≥ 50 s	≥ 95 s	X
	e	Small splashes of molten metal	≥ 10 s	≥ 15 s	≥ 25 s	≥ 35 s	X
	f	Large splashes of molten metal	30g	60g	120g	200g	X

a1) After flame time (seconds).
a2) After glow time (seconds).
b) Contact temperature/ Threshold time (seconds).
c) Heat transfer index (HTI) (seconds).
d) Heat transfer (T_{24}) (seconds).
e) Number of droplets which produce a temperature rise of 40 °C.
f) Molten iron (in grams).

The performance levels are only for the complete glove, all layers included.
«X» means that the glove has not been submitted to the test.

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