



Area of use*



LIGHT INDUSTRY



FINISHINGS



GREEN SPACES



MAINTENANCE



LOGISTICS

Technical features

Support: synthetic fibers and glass fibers, seamless knitted.

Gauge: 10.

Wrist: elastic knit with piping.

Coating: bi-polymer (polyurethane and nitrile), fully coated.

Colour: black and grey.

Sizes: 7 to 11.

Packaging: carton of 100 pairs.

Subpackaging: bag of 10 pairs.

NINJA **BI-POLYMER**
X4



Advantages

- > **Non-irritating and easy to adjust** with the seamless knitted support.
- > **Good support of the glove** with the elastic knitted wrist.
- > **Increased flexibility and oil resistance** with the bi-polymer coating.
- > **Glove tightness** with full coating.
- > **Antibacterial** with Sanitized® treatment.

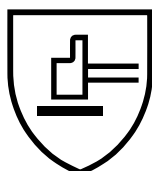


Certification

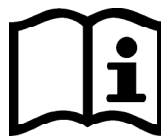
This product complies with **European Regulation (EU) 2016/425** on Personal Protective Equipment (PPE). **Category II**.

Issued by **SATRA**, notified body n°2777.

EN 388 : 2016



4X31B



CE

Download the EU declaration of conformity on <http://docs.singer.fr>

EN 420: 2003 + A1 2009 - PROTECTIVE GLOVES

General requirements and test methods. This standard specifies the essential requirements for ergonomics, safety, marking, information and instructions for use.

EN 388 - AGAINST MECHANICAL RISKS



1.2.3.4.F.P

1	Abrasion resistance. Level 1 to 4 (4 being the best).
2	Blade cut resistance. Level 1 to 5 (5 being the best).
3	Tear resistance. Level 1 to 4 (4 being the best).
4	Puncture resistance. Level 1 to 4 (4 being the best).
F	Cut resistance (ISO13997). Level A to F (F being the best).
P	Resistance against impact (according to EN 13594). Marking P (optional test).

For gloves that contain materials which can get dulls to the blade, and additional compulsory test must be performed according to EN ISO 13997 test method (TDM 100 tester).

This test may also be optional for gloves that do not dull the blade.

EN 374 - AGAINST CHEMICALS



Type X
X.X.X

Type A	Breakthrough time \geq 30 min for at least 6 chemicals of the list (see below)
Type B	Breakthrough time \geq 30 min for at least 3 chemicals of the list (see below)
Type C	Breakthrough time \geq 10 min for at least 1 chemical of the list (see below)

A	Methanol	67-56-1	Primary alcohol
B	Acetone	67-64-1	Ketone
C	Acetonitrile	75-05-8	Nitrile composite
D	Dichloromethane	75-09-2	Chlorinated hydrocarbon
E	Carbone Disulphide	75-15-0	Organic compound containing Sulphur
F	Toluene	108-88-3	Aromatic hydrocarbon
G	Diethylamine	109-89-7	Amine
H	Tetrahydrofuranne	109-99-9	Heterocyclic Ether
I	Ethyl acetate	141-78-6	Ester
J	n-Heptane	142-82-5	Saturated Hydrocarbon
K	Sodium hydroxide 40%	1310-73-2	Inorganic base
L	Sulphuric acid 96%	7664-93-9	Inorganic mineral acid, oxidising
M	Nitric acid (65 \pm 3) %	7697-37-2	Inorganic mineral acid
N	Acetic acid (99 \pm 1) %	64-19-7	Organic acid
O	Ammonia 25%	1336-21-6	Organic base
P	Hydrogen peroxid 30%	7722-84-1	Peroxide
S	Hydrofluoric acid 40%	7664-39-3	Inorganic mineral acid
T	Formaldehyde 37%	50-00-0	Aldehyde
Classe 1		Breakthrough time: > 10 minutes	
Classe 2		Breakthrough time: > 30 minutes	
Classe 3		Breakthrough time: > 60 minutes	
Classe 4		Breakthrough time: > 120 minutes	
Classe 5		Breakthrough time: > 240 minutes	
Classe 6		Breakthrough time: > 480 minutes	

ASTM F2878 - PUNCTURE RESISTANCE TO AN HYPODERMIC NEEDLE



Level X

Level 1	Puncture resistance with a less or an equal force to 2 N.
Level 2	Puncture resistance with a less or an equal force to 4 N.
Level 3	Puncture resistance with a less or an equal force to 6 N.
Level 4	Puncture resistance with a less or an equal force to 8 N.
Level 5	Puncture resistance with a less or an equal force to 10 N.

EN 374-5 - AGAINST MICRO-ORGANISMS



VIRUS

Protection against bacterias and fungi

VIRUS = with additional permeation test to virus (ISO16604)

EN 511 - AGAINST THE COLD



A.B.C

A	Convective cold. Level 0 to 4 (4 being the best).
B	Contact cold. Level 0 to 4 (4 being the best).
C	Waterproofness. Level 0 (No) or 1 (Yes).

EN 407 - AGAINST THERMAL RISKS (HEAT AND/OR FIRE)



A.B.C.D.E.F

A	Burning behaviour. Level 1 to 4 (4 being the best).
B	Contact heat (threshold time \geq 15 s). Level 1 to 4 (4 being the best).
C	Convective heat. Level 1 to 4 (4 being the best).
D	Radiant heat. Level 1 to 4 (4 being the best).
E	Small splashes of molten metal. Level 1 to 4 (4 being the best).
F	Large splashes of molten metal. Level 1 to 4 (4 being the best).

EN 12477 + A1 - FOR WELDERS

Type A

More general welding and cutting operations

Type B

Higher dexterity for TIG welding

EN 381-7 - AGAINST HAND-HELD CHAIN SAWS



Class 0	Resistance against a saw turning at 16 m/s
Class 1	Resistance against a saw turning at 20 m/s
Class 2	Resistance against a saw turning at 24 m/s
Class 3	Resistance against a saw turning at 28 m/s

Model A or B depending on the specified protection area

EN ISO 10819 - VIBRATION AND MECHANICAL SHOCKS

Hand-arm vibration. Measurement and evaluation of the vibration transmissibility from gloves to the palm of the hand.

EN 16350 - ELECTROSTATIC PROPERTIES

Each individual measurement shall satisfy: the vertical resistance requirement: $R_v < 1,0 \times 10^8 \Omega$.
Test method according to EN 1149-2: 1997.

EN 60903 - MAXIMAL TENSION OF USE



AC	DC	Class
750 V	500 V	00
1 500 V	1 000 V	0
11 250 V	7 500 V	1
25 500 V	17 000 V	2
39 750 V	26 500 V	3
54 000 V	36 000 V	4

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