

## Technical Specifications

### Glove MATRIX 2 VV.F.

ref.14782

Protective glove for Fire-fighting, 5-finger style, pre-gripped shape (ergonomic cuts) with elastic finger joint folds for excellent touch sensitivity to grip objects and optimal fit, safety cuff with width regulation system by means of flame retardant fastening tape.

Back and cuff with padding; the cuff is provided with a combined action retro-reflective fluorescent band, 50mm width.

The glove is water-tight, windproof and breathable and certified according to EN 659:2003+A1:2008

Palm side of glove is high abrasion, punch and cut resistant and anti-slip on wet and smooth surfaces.



- Outer layer:
  - knitted para-aramid fabric with silicone coating on the areas more exposed to abrasion
  - 100% new generation aramid fabric, high mechanical resistance, resistant to pilling
- Para-aramid fabric/ Silicone reinforcements:
  - index finger
  - inner thumb part
  - 1<sup>st</sup> and 3<sup>rd</sup> finger phalanx (palm side)
  - upper and lower outer palm
  - knuckles and back
- Functional waterproof and breathable PU membrane
- Thermal barrier: Star-liner quilted barrier, 100% aramid fiber with minimum water absorption and lining in aramid/viscose high comfort fabric.

**SIZES:** This protective glove is manufactured in conformity with technical specification EN-420, in sizes 06-07- 08-09-10-11-12-13.

## Performances :

See CE Certificate N° 0162/9764/05 issued by CIMAC, ID N° 0465 and the related test report no. 20104871.

Test	Norm	Minimum required Minimal EN 659 performances	Performance of the Glove performances
Abrasion	EN 659-3.3 / EN 388	Level 3	<b>Level 4 – break at 12.800 cycles</b>
Cut resistance	EN 659-3.4 / EN 388	Level 2	<b>Level 3 – minimum index 5,2</b>
Tear strength	EN 659-3.5 / EN 388	Level 3	<b>Level 4 – minimum value 98 N</b>
Perforation resistance	EN 659-3.6 / EN 388	Level 3	<b>Level 4 – minimum value 153 N</b>
Burning behaviour	EN 659-3.7 – EN 407	Level 4	<b>Level 4</b>
Convective heat	EN 659-3.8 / EN 407	Level 3	<b>Level 4 – HTI<sub>24</sub>=25 sec.</b>
Radiant heat	EN 659-3.9 / EN 366 (40KW/m <sup>2</sup> )	t <sub>24</sub> ≥ 18 sec.	<b>t<sub>24</sub>=54 sec.</b>
Contact heat after conditioning dry/wet	EN 659-3.10 / EN 702	t <sub>t</sub> ≥ 10 sec. a 250 °C	<b>t<sub>t</sub>= 18 sec. a 350 °C</b>
Resistance to lining material heat	EN 659-3.11 / ISO 17493 (min. 180 °C)	compliant	<b>compliant without alteration</b>
Shrinkage by lining material heat	EN 659-3.12 / ISO 17493 (min. 180 °C)	≤ 5%	<b>&lt; 5% - compliant</b>
Dexterity	EN 659-3.13 / EN 420	Level 2	<b>Level 5</b>
Sewing resistance	EN 659-3.14 / ISO 13935-2	≥ 350 N	<b>410 N</b>
Removal time	EN 659-3.15	≤ 3 sec.	<b>compliant</b>
Water penetration	EN 659-3.16 / EN 344	Min. level 2	<b>Level 4 : &gt; 180'</b>
Glove integrity	EN 659-3.17 / ISO 15383	No loss after 5 min.	<b>compliant</b>
Penetration of Chemical liquids	EN 659-3.18 / EN 368 (20 °C/10 sec.)	No penetration	<b>compliant</b>

This PPE is provided with EC marking showing the approval to sale according to Law Decree 475 dated 04/12/1992, as per Council directive 89/686/CEE, identified as 3<sup>rd</sup> category PPE, in compliance with the following technical specifications:  
EN 388 43445 – EN 407 4343XX – EN 659 – EN 374-2 (protection against micro-organisms)

# GLOVES “MATRIX 2 VV.F” 14782

## Size

**PROTECTIVE GLOVES WITH SPECIFIC PROTECTION FROM  
MECHANICAL RISKS, THERMAL RISKS AND FOR FIRE-  
FIGHTING OPERATIONS**

## INFORMATION NOTE FOR USERS

### THIS NOTE MUST BE CAREFULLY READ BEFORE USE

This protective glove can grant the necessary protection level only if used following exactly what established in this information note; the manufacturer declines any responsibility in case of improper use or maintenance.

If also after reading this information note any doubts or uncertainties will arise about use, maintenance or protection level of the protective gloves, you are invited to contact your superior or the responsible of safety for the plant you are working on. For any information you may need you can contact:

ST Protect S.p.A. Via Circonvallazione, 97 - 27043 Broni - ITALY





Tel. +39.0385 – 090200 Fax +39.0385 – 250166

<http://www.stprotect.it> E-mail: [info@stprotect.it](mailto:info@stprotect.it)

## INFORMATION SHOWN ON THE GLOVES

The following information is shown on each pair of glove:

- EC marking, year of application of the marking, code of the notified body that make the verifications
- identification code of the item, name and size of the glove.

Pictogram showing the category of mechanical risks, according to EN 388 protection levels as shown in table 1 and sorted for letter A-B-C-D. the protection level for this kind of risk is to be considered valid for the palm only.	
Pictogram showing the category of mechanical risks, according to EN 407 protection levels as shown in table 2 and sorted for letter E-F-G-H-I-L.	
Pictogram showing danger category for fire fighters according to EN 659, proving the compliance of the equipment for specific use during high risk in fire-fighting operations	
Pictogram showing danger category for risks deriving from the contact with micro-organisms, according to EN 374 part 2	

-Manufacturer 's mark

### REFERENCES

EC MARK proving the approval to selling on the ground of DL 475 dated 04-12-1992 about 89/686/EEC of the Council Directive dated 21-12-1989 and of DL 10 dated 02-01-1997 about the 93/68/EEC, 93/95/EEC and 95/58/EEC, issued from the notified body: **0465 ANCI Servizi S.R.L. - Sezione CIMAC, Corso G.Brodolini 19 - 27029 VIGEVANO - ITALY.**

The pictogram shown on the glove grants that it fulfils with the requirements of comfort and ergonomics fixed from EN 420 standard, position 4.1, 4.2, 4.4, 5 and that meets what required for protection against physical and mechanical risks due to abrasion, blade cut, perforation and tearing.

Those requirements are placed inside a range of 5 steps (levels), related to the test's requirements of the EN 388 standards, as shown in the following table:

TABLE 1

	TEST	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5
A	Resistance to abrasion (n°. of cycles)	100	500	2000	8000	//
B	Resistance to cutting (blade)	1.2	2.5	5.0	10.0	20.0
C	Tearing strength (Newton)	10	25	50	75	//
D	Perforation strength (Newton)	20	60	100	150	//

	TEST	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
E	Behaviour at flame: time of exposition to flame (sec) Afterglow (sec)	</=20 n.a.	</=10 </=120	</=3 </=25	</=2 </=5
F	Contact heat: Temperature at the contact T (°C) Threshold time t <sub>i</sub> (sec)	100 >/=15	250 >/=15	350 >/=15	500 >/=15
G	Convective heat : heat transfer index HTI	>/=4	>/=7	>/=10	>/=18
H	Radiant heat: Heat transfer t <sub>3</sub> (sec)	>/=5	>/=30	>/=90	>/=150
I	Little spread of molten metal: Number of little drops	>/=5	>/=15	>/=25	>/=35
L	Big spread of molten metal: molten iron (grams)	30	60	120	200

TABLE 2

The "X" letter placed under the pictogram related to a protection level means that the feature has not been tested on this equipment.

Protection levels are based on the results of laboratory tests, they CANNOT BE necessary considered valid for all real operating conditions. For that reason the choice of the correct glove to be used must be done with the knowledge of the working conditions, the working processes and the risks related to the working environment.






This glove HAS NOT BEEN DEVELOPED for protection against vibrations or specific chemical risks, electric risks, cut due to shocks, cold and ionised radiation.

## STORAGE

Keep the glove dry and clean in a suitable place, at room temperature between +10°C e +35°C, with low humidity and do not expose to sunbeams

## CLEANING

The glove can be washed; we advise to remove dirt from the external part of the glove using a soft brush then wash the glove according to the following instructions:

	Max temperature 60°C; reduced mechanical action; rinse by gradually adding cold water, so as to decrease temperature; reduced centrifugation
	Do not bleach.
	Do not iron; steam ironing and steam treatments are not allowed.
	Dry wash with tetrachlorethylene, mono-fluorine – trichloromethane, trichloroethane, hydrocarbons with boiling point between 150°C and 200°C, inflammability point between 38°C and 60°C; severe limitations in adding water and/or in mechanical actions and/or in washing temperature and/or drying. Do not dry clean in automatic laundries.
	Do not dry by tumble dryer.

Never use alcohol, methyl-ethyl-ketones, dilutings, petrol, oil or any other chemical agent for cleaning.

Those agents could damage the material of the compound, producing invisible weakening processes that can vary the protective features of the glove

## GLOVES DURABILITY

Due to several factors, like air moisture, storage temperature, etc, it is not possible to establish an expiring period.

**A.N.C.I. Servizi S.r.l.**

Sede legale e amministrativa  
20149 MILANO  
Via Monte Rosa, 21  
Tel. 02.438291  
Fax 02.48005833  
E-mail: [progettispeciali@anci-calzature.com](mailto:progettispeciali@anci-calzature.com)  
Cap. Soc.: € 10.400 i.v.  
C.F./P.I.: 07199040150  
Reg. Imprese n° 229059  
Trib. di Milano  
R.E.A. n° 1147818

**CIMAC**

Centro Italiano  
Materiali di Applicazione  
Calzaturiera

**Sede operativa**

C.so G. Brodolini, 19 - 27029 VIGEVANO (PV) - Tel. 0381.84722 - Fax 0381.73393  
E-mail: [ce@cimacpv.it](mailto:ce@cimacpv.it) - Internet: <http://www.cimacpv.it>

According to the EEC instructions 89/686 dated 21st of December 1989, concerning the standardisation of legislation of all member countries with regard to individual protection systems and the relative legislative decree dated 4th of December 1992, N° 475,

A.N.C.I. servizi s.r.l. - C.I.M.A.C. section  
**CENTRO ITALIANO MATERIALI DI APPLICAZIONE CALZATURIERA**  
Authorized with the decree issued by the Ministry of Industry of the Italian Republic  
on the 11th of October 2000 - Community Identification N° 0465

grants:

## EC TYPE-EXAMINATION CERTIFICATE N°. 0162/9764/05 – Rev. 2

for the following model of personal protective equipment:

**Protective glove - Art. "MATRIX 2 VVF COD. 14782"**

Manufacturer (see notes):

**TACCONI SPA**  
**VIALE LODI, 59**  
**27100 PAVIA PV**  
**ITALIA**

**The validity of this Certification Attestation (III Category PPE) after OCTOBER 08<sup>th</sup> 2011 shall be submitted, by manufacturer choice, at one of periodic systems control shared respectively by articles 9 and 10 of D.L. 475 dated 09.12.92**

Vigevano, 08 OCTOBER 2010

Technical Responsible of the Centre  
Ing. Giuseppe Bellotti

EC Type-Examination Certificate N°.0162/9764/05 – Rev.2

dated 08/10/10 - Pagina:1 di 5

Centro Italiano  
Materiali di Applicazione  
Calzaturiera

CIMAC



## 1. Description of personal protective equipment:

Protective glove against thermal risk (heat and/or fire)  
In compliance with EN 407 (04) standard  
Protective glove against mechanical risk with uniform protection  
In compliance with EN 388 (03) standard  
Protective glove against micro-organism  
In compliance with EN 374 Part II (03) standard  
Protective glove for fire fighter  
In compliance with EN 659 (08) standard  
Size range: from 6 to 11  
Manufacturing process: sewed







2. The tests and the examinations to verify the conformity of the article (in compliance with art. 10 of Directive 89/686/EEC) are performed applying the following harmonized standards and the Directive 2002/61/CE dated July the 19<sup>th</sup> 2002:

Standard applied

- A – EN 420 (03) – General requirement for gloves.
- B – EN 407 (04) – Protective gloves against thermal risk.
- C – EN 388 (03) – Protective gloves against mechanical risk.
- D – EN 374 Part II (03) – Protective gloves against micro-organism
- E – EN 659 (08) – Protective gloves for fire fighters.

3. The results of tests and examinations are contained in the following test reports:

C.I.M.A.C.	RP 20050376	dated 03 February 2005
C.I.M.A.C.	RP 20104871	dated 07 October 2010

4. Requirements of the personal protective equipment:

The protective glove article MATRIX 2 VVF COD. 14782 complies with:

- the requirements of EN 420 (03) standard, points 4.1, 4.2, 4.4, 5 and 5.2;
- the following performance levels as specified in EN 407 (94) standard;

Performance level

5.1	Burning behaviour	4
5.2	Contact heat	3
5.3	Convective heat	4
5.4	Radiant heat	3
5.5	Small splashes of molten metal	X
5.6	Large quantities of molten metal	X

- the performance levels as specified in prospectus 1 of EN 388 (04) standard;

Performance level

6.1	Abrasion resistance	4
6.2	Cut resistance	3
6.3	Tear resistance	4
6.4	Puncture resistance	4
5.2	Dexterity	5

- the glove conform to what prescribed by EN 659 (03) standard.
- the glove conform to what prescribed by EN 374 Part II (03) standard.



#### 4. Marking of the personal protective equipment:

The following information is provided on a label applied on the glove:

- the "EC" mark
- the article code MATRIX 2 VVF COD. 14782
- the date of manufacturer
- the manufacturer trade mark: TACCONI
- the glove size
- the identification number of the notified body: 0465
- the symbols concerning the protection provided:  
thermal risk (heat and/or fire), protection against mechanical risk, protection against micro-organism and protection for fire fighter.
- the performance levels as specified in EN 407 (04) standard: Protective gloves against thermal risk (heat and/or fire):

##### Performance level

5.1	Burning behaviour	4
5.2	Contact heat	3
5.3	Convective heat	4
5.4	Radiant heat	3
5.5	Small splashes of molten metal	X
5.6	Large quantities of molten metal	X

- the performance levels as specified in prospectus 1 of EN 388 (03) standard;

##### Performance level

6.1	Abrasion resistance	4
6.2	Cut resistance	3
6.3	Tear resistance	4
6.4	Puncture resistance	4
5.2	Dexterity	5