

In enforcement of the directive 89/686/CEE dated from December 21st 1989 concerning harmonisation of state member regulations with regard to personal protective equipment transposing this directive into French law in the labour code or the sport code,

INSTITUT FRANÇAIS DU TEXTILE ET DE L'HABILLEMENT
Avenue Guy de Collongue
69134 ECULLY CEDEX

entitled by decree of the " Ministère du Travail, de l'Emploi et de la Formation Professionnelle " dated from 11/08/92
identified by the number 0072 (published in OJEC)

assigns

EC TYPE EXAMINATION CERTIFICATE

n° 0072 / 2533 / 162 / 10 / 16 / 0118

to the following model of personal Protective Equipment :

Protective suit "Jacket + trousers" for fire-fighters

- Reference : **NFK-TFS-NK-1394**
- Manufacturer : **NARFOAMKAR**
N° 27, 4th Ahmad Ghasir Avenue
TEHRAN
IRAN
- Required by : **NARFOAMKAR**
N° 27, 4th Ahmad Ghasir Avenue
TEHRAN
IRAN

This Certificate comprises 4 numbered pages 1/4, 2/4, 3/4 and 4/4.

- Description :

The garments forming the subject of the present Certificate consist as follows :

. It is a two pieces suit «jacket + trousers» offering a protection for fire-fighters, providing a full body protection and a sufficient overlap between the two garments. It can be manufactured with retro-reflective tapes with heat resistance and limited flame spread in accordance with standard EN 469+A1 but it does not visually indicate the presence of users according to EN ISO 20471 (2013), or according to paragraph 6.14 of EN 469+A1 (2006). It can be manufactured in different colors. Assembly with yarn 100 % Meta-aramid, supplier Schappe Techniques (Blyes – France).

Jacket :

The jacket has a straight collar with a tab closing with hook and loop fastener, long sleeves with a tab closing with hook and loop fastener, with a wrist ribbing and a strap made of outer fabric, an elbow reinforcement, an anti-wicking barrier in the lower part of the garment and at the end of sleeves, an inner opening on the lining with a zipper to allow the membrane to be controlled, inner pockets and outer pockets, and reflective trims : a trim on the flap of the closing system, 2 trims around each sleeve, a trim on the chest at the left and right side, a trim in the lower part of the garment, 2 vertical trims on the back and some inclined trims on the back. Closure system in the front with a metal zipper under the flap closing with hook and loop fastener.

Trousers :

It has knee reinforcements, an opening at the front with hook and loop fastener and a snap, elastic braces closing with a plastic buckle and fixed at the back on a yoke, an anti-wicking barrier at the end of the legs, outer pockets covered by a flap closing with hook and loop fastener, an elasticated waist at the back and reflective trims around each leg.

. The garments are made of the following materials :

	REFERENCE	COMPOSITION	SUPPLIER
Outer fabric	1015 - GA001	Diamond Technology® - 75 % Nomex® / 23 % Kevlar® / 2 % antistatic Polyamide, 200 g/m², dope dyed, different colors	SOFIETA Advanced Textiles (Bourgoin Jallieu – France)
Membrane (membrane in direction of the lining)	1581 – EV200	Membrane Evoskeen® FR (100 % Polyuréthane FR) laminated on a Basofil nowoven (50 % Melamine resin / 25 % Meta aramid, / 25 % Para Aramid 140 g/m²	SOFIETA Advanced Textiles (Bourgoin Jallieu – France)
Lining	5051M6 – NA000	2 layers quilted material, 205 g/m² Layer 1 = plain weave 50 % Aramid / 50 % Viscose FR Layer 2 = 100 % Aramid	SOFIETA Advanced Textiles (Bourgoin Jallieu – France)
Anti-wicking	1554C7 – NA030	Polyurethane membrane laminated to a 100 % Nomex® fabric, 220 g/m²	SOFIETA Advanced Textiles (Bourgoin Jallieu – France)
Knee and elbow reinforcement	7700E2 – NA000	100 % Para aramid knit with silicone coating 750 g/m²	SOFIETA Advanced Textiles (Bourgoin Jallieu – France)
Wrist ribbing	/	100 % Aramid knit Dark blue Navy color	Kanox (Hsin-Tien city, Taipei – Taiwan)
Retroreflective tapes	Scotchlite™ 9587	Reflective tape with Glass microbeads Lime / silver / lime color	3M (Piotello (MI) – Italie)

. The jacket is manufactured in 4 sizes (S, M, L and XL) for persons to fit chest girth from 114 to 142 cm and height from 164 to 188 cm. The trousers are manufactured in 4 sizes (S, M, L and XL) for persons to fit waist girth from 88 to 110 cm and height from 164 to 188 cm.

. The manufacturer declares that the garments do not contain any substances at levels known or suspected to affect the health or the hygiene of the user in the foreseeable conditions of normal use.

. These garments must be stored on a hanger in a clean, dry and ventilated area without exposure to light and to UV. Do not keep the garments folded in a cupboard if they are still wet (water, perspiration).

. Washing with a domestic washing cycle at 60°C, reduced mechanical action, bleaching forbidden, tumbler drying two dots allowed, ironing two dot allowed, dry cleaning P allowed. The manufacturer recommends a reproofing treatment after each washing according to a specify process. For process see the manufacturer.



Performance levels obtained are as follows :

Garments = Test report IFTH N° 15-04204 E1-V1 from 27/11/2015

Materials, seams and accessories = Test reports IFTH N° 15-04205 E1-V1 from 01/12/2015, 15-04206 E1-V1 from 27/11/2015, 16-01067 E1-V1 from 01/04/2016 and 16-01068 E1-V1 from 04/05/2016 ; Test reports West Yorkshire Materials Testing Service N° 73745-01 from 09/03/2016 / 70243, 70243-01, 70689 & 70689-01 from 17/07/2015 / 65324 from 11/07/2014

Oeko-Tex® Standard 100 Certificate N° CQ 539/1 from 29/09/2016 IFTH

Relective trims = Certificate of tests FIOH N° 185100A01 from 28/02/2012

Ageing obtained after several washings concerns only the value obtained in laboratories and provides no indication in terms of real use :

- According to EN ISO 13688:2013

Dimensional change for each component of the assembly :	pass
Size, ergonomic requirement :	pass
Innocuousness :	pass

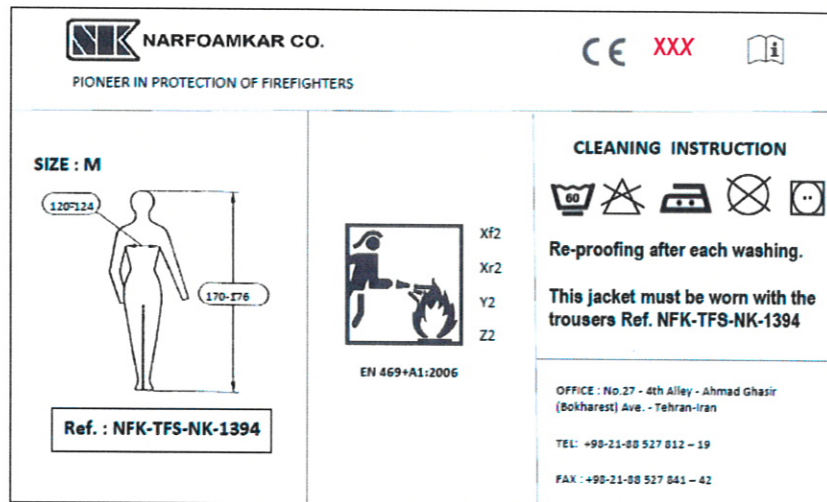
- According to EN 469+A1:2006, tests carried out after 5 cycles of washings at 60°C + final reproofing of the material assembly according to manufacturer's prescriptions :

Flame spread on materials, seams, hardware and closure system :	pass
Heat transfer (flame and radiation) :	Xf2, Xr2
Residual tensile strength of outer material when exposed to radiant heat :	pass
Heat resistance of materials, hardware, closure system :	pass
Tensile strength of the outer material :	pass
Tear strength of the outer material :	pass
Surface wetting of the outer material :	pass
Dimensional change of the materials :	pass
Resistance to penetration by liquid chemicals :	
NaOH 40% at 20°C :	pass
HCl 37% at 20°C :	pass
H ₂ SO ₄ 30% at 20°C :	pass
O-xylene at 20°C :	pass
Resistance to water penetration :	Y2
Water vapour resistance <u>without retroreflective tapes</u> :	Z2
Flame spread and heat resistance on wrist ribbing and reflective trims :	pass

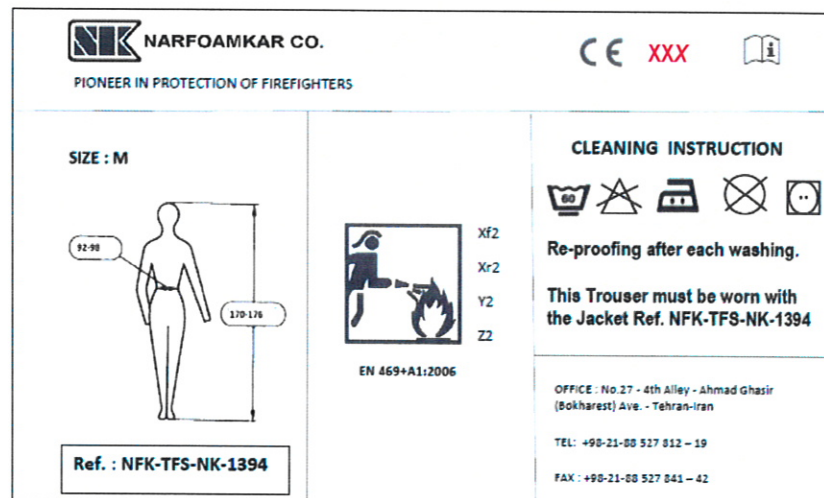
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- CE marking appears on label sew inside each garments and is as follows :

Label for jacket :



Label for trousers :



XXX = PPE of category 3. When the marking includes the number of the notified body which carries out the production control, this number obliges the manufacturer to ask this notified body to make the production control according to 11A or 11B procedure.

- The compliance with the essential requirements as listed in Appendix II of the directive 89/686, subsection 1.1 – 1.2 – 1.3 – 1.4 – 2.2 – 2.4 – 2.8 – 2.12 – 2.14 – 3.6 was controlled by using the following harmonised standards :

- . EN ISO 13688:2013 for general requirements
- . EN 469+A1:2006 for protective clothing for fire-fighters.

According to Regulation 2016/425, article 47,
this document is valid until 21 April 2023.

**INSTITUT FRANÇAIS
TEXTILE - HABILLEMENT**
Avenue Guy de Collongue
69134 ECULLY CEDEX
Tél. (33) 04 72 86 16 00 - Fax (33) 04 78 43 39 66

Ecullly, October 14th 2016

Stéphanie PROPPER

PPE Certification Ingenieur

NOTA : Any modification brought to a brandnew material which is the purpose of the present EC Type Examination Certificate should be brought to the knowledge of the entitled organisation in pursuance of the section R 4313-38 of the Labour and Social Welfare laws.

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