



Finnish Institute of  
Occupational Health

FIOH

notified by the Ministry of Social Affairs and Health  
and identified under 0403 grants

# EC TYPE EXAMINATION CERTIFICATE

15086VHS01

for high visibility clothing  
as defined in EN ISO 20471:2013  
jacket class 3, trousers class 1

## **Jacket**

**Hi vis yellow art. 22712 6 01-07,**

**Hi vis orange art. 22712 5 01-07**

## **Craftsman Trousers**

**art. 23912 6 01-07 Hi vis yellow,**

**art. 23912 5 01-07 Hi vis orange**

Synfiber AS  
Oslo, Norway

These products comply with Directive 89/686/EEC,  
as amended

Helsinki, 16 February 2015  
Expiry date: 15 February 2020

Helena Mäkinen  
Leading Specialist

Erja Tammela  
Senior Specialist

This certificate comprises 3 pages and an appendix.

Finnish Institute of Occupational Health, Notified Body No. 0403,  
Topeliuksenkatu 41 b, FI-00250 Helsinki, Finland



## 1. Applicant

Synfiber AS  
Professor Birkelands vei 35  
N-1081 Oslo  
Norway

## 2. Description and identification of the product

Type: High visibility clothing as defined in EN ISO 20471:2013

Jacket class 3, trousers class 1 for minimum areas of visible materials

Name: Jacket, Hi vis yellow art. 22712 6 01-07, Hi vis orange art. 22712 5 01-07  
Craftsman Trousers Hi vis yellow art. 23912 6 01-07,  
Hi vis orange art. 23912 5 01-07

Size range: Trousers 44 ->, Jacket S->

Description: Fluorescent material is a fluorescent yellow or orange quality WORKCODE® 71,  
85% PES/15% CO, 295 g/m<sup>2</sup> (IBS International Co. Ltd., Korea).

Non-fluorescent material is black woven fabric 65% PES/35% CO, Twill, 310 g/m<sup>2</sup>  
(Mianyang Jialian Printing & Dyeing Co. Ltd., China).

Reinforcement material in trousers is black Kordura 500D AC coating, 100% PA,  
203 g/m<sup>2</sup> (Changshu Huamao Textile Co. Ltd., China) or 500D cordura, 100% PA, Ac  
coating, 213 g/m<sup>2</sup> (Zhejiang Huaxing Garments Co. Ltd, China).

Retroreflective material is LOXY® 9201 Silver (Sto-Nor Industri AS, Norway).

Manufacturer: Zhejiang Huaxing Garments Co. Ltd, China

Pictures of the products are on page 3.

## 3. Adequacy and validity of the technical documentation

The documentation supplied by the applicant is listed in Appendix 1. The technical documentation is considered adequate and valid. Materials and the products have been tested in accordance with a harmonized European standard EN ISO 20471:2013 by accredited testing laboratories. The models of the products supplied by the applicant conform to the technical documentation.

## 4. Compliance with basic health and safety requirements

The products and the technical documentation relating to them comply with the relevant basic health and safety requirements stated in Directive 89/686/EEC Annex II as amended.

Note: Any modification in design, materials, or in the technical documentation, carried out on these type examined products must be brought to the attention of FIOH.



Pictures of the products

Jacket art. 22712



Art.no 22712 6  
Colour: Yellow/ black



Art.no 22712 5  
Colour: Orange/ black

Craftsman Trousers art. 23912

Art. no 23912 6  
colour:  
yellow/black



Art.no 23912 5  
colour:  
orange/black



Appendix 1. Technical documentation

End of EC type examination certificate 15086VHS01.



**Technical documentation regarding EC type examination certificate 15086VHS01**

Product name: Jacket, Hi vis yellow art. 22712 6 01-07, Hi vis orange art. 22712 5 01-07,  
Craftsman Trousers Hi vis yellow art. 23912 6 01-07, Hi vis orange  
art. 23912 5 01-07

Applicant: Synfiber AS, Professor Birkelands vei 35, N-1081 Oslo, Norway

| <i>Item of technical documentation</i>  | <i>Document identification</i>  | <i>Assessment</i>  |
|---|---|--|
| 1. Application for the EC type examination  | 2015-02-11  |  |
| 2. Product drawing, construction, and material list   | Drawings of the products, 2014-11-13:<br><ul style="list-style-type: none"> <li>High Vis Jacket 22712</li> <li>High Vis Craftsman trousers 23912</li> </ul> | Products are identified and materials are specified  |
| 3. Compliance with Directive 89/686/EEC relevant basic requirements                             | The compliance assessment is based on reports mentioned below items 3.1-3.10  |  |
| 3.1 FIOH assessment of relevant Directive basic requirements                                    | 2015-02-16  | The applied harmonised standards EN ISO 13688:2013 and EN ISO 20471:2013 support the relevant requirements   |
| 3.2 Centexbel test report   | CR/2603_2013, 2013-10-21<br>WORKCODE® 71, HV Yellow<br>CR/2602_2013, 2013-10-21<br>WORKCODE® 71, HV Orange  | Fluorescent material and colours meet the requirements of EN ISO 20471:2013  |
| 3.3 Testex Oeko-Tex Certificate   | No. SEWO 096081, 2014-06-12<br>IBS International Co. Ltd<br>Fabrics made in PES and PES blends  | Material meets the innocuousness requirements of EN ISO 13688:2013   |
| 3.4 SGS test report   | HZSL1412103988TX, 2015-01-12<br>Woven fabric 65% PES 35% CO twill, black  | Non-fluorescent material meets the requirements of EN ISO 20471:2013   |
| 3.5 SGS test report   | HZSL1407057202TX, 2014-08-14<br>100% Nylon fake cordura, black  | Non-fluorescent material meets the requirements of EN ISO 20471:2013   |
| 3.6 SGS test report   | HZSL1407060234TX, 2014-08-12<br>100% Nylon cordura, black   | Non-fluorescent material meets the requirements of EN ISO 20471:2013   |
| 3.7 Satra test report   | SPC0219613/1345, 2014-01-17<br>LOXY 9201  | Retroreflective material meets the requirements of EN ISO 20471:2013   |
| 3.8 FIOH test record  | Assessment of the design and measurements of areas, 2014-11-21  | Jacket in size S meets the minimum area requirements of class 3 and Trousers 23912 in size 44 of class 1 as defined in EN ISO 20471:2013. Areas of reflective and fluorescent materials:<br><ul style="list-style-type: none"> <li>Jacket: 0.27 m<sup>2</sup>, 0.86 m<sup>2</sup></li> <li>Trousers: 0.10 m<sup>2</sup>, 0.19 m<sup>2</sup></li> </ul> |
| 3.9 Draft information sheet   | EN 20471 High Visibility, Synfiber Workwear   | Document meets the requirements of Directive 89/686/EEC, EN ISO 13688:2013 and EN ISO 20471:2013   |
| 3.10 Product markings   | Drafts of markings, 2014-12-17  | Markings meet the requirements of EN ISO 13688:2013 and EN ISO 20471:2013  |
| 4. Description of the production quality system and related product control and test facilities | Quality Management System Certificate No. UK13Q10012R2M, 06/07/2013, Zhejiang Huaxing Garments Co. Ltd, 2013  | Adequate to category II products   |