



Finnish Institute of  
Occupational Health

FIOH

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

# EC TYPE EXAMINATION CERTIFICATE

16233TCS01

for high visibility clothing against rain  
as defined in EN ISO 20471:2013,  
jacket class 3, trousers class 2,  
and EN 343:2003+A1:2007, 3, 3

**Utility Jacket, Art. 30719 5 00-07 Hi vis orange,  
Art. 30719 6 00-07 Hi vis yellow**

**Utility Bib pants, Art. 30720 5 00-07 Hi vis orange,  
Art. 30720 6 00-07 Hi vis yellow**

Synfiber AS  
Oslo, Norway

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

Helsinki, 2 September 2016  
Expiry date: 1 September 2021

Erja Tammela  
Senior Specialist

Minna Torenien  
Specialist



## 1. Applicant

Synfiber AS  
Professor Birkelandsvei 35  
N-1081 Oslo  
Norway

## 2. Description and identification of the product

Type: High visibility clothing against rain as defined in EN ISO 20471:2013 and EN 343:2003+A1:2007

EN ISO 20471: Jacket class 3, trousers class 2 for minimum areas of visible materials  
EN 343: Class 3 for water penetration, class 3 for water vapour resistance

Name: Utility Jacket, Art. 30719 5 00-07 Hi vis orange, Art. 30719 6 00-07 Hi vis yellow  
Utility Bib pants, Art. 30720 5 00-07 Hi vis orange, Art. 30720 6 00-07 Hi vis yellow

Size range: XS ->

Description: Garments are made of a fluorescent orange or yellow with PU laminated 100% PES fabric WP511/HPM25-white, 100% PES, 195 g/m<sup>2</sup> (Woack Ges.m.b.H & Co., Austria). Non-fluorescent material is the same quality in black.

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 harmonized European standards EN ISO 20471:2013 and EN 343:2003+A1:2007 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

Utility Jacket, Art. 30719 5 00-07 Hi vis orange,  
Art. 30719 6 00-07 Hi vis yellow

Sizes XS-S



Sizes M->



Utility Bib pants,  
Art. 30720 5 00-07 Hi vis orange,  
Art. 30720 6 00-07 Hi vis yellow



Appendix 1. Technical documentation

End of EC type examination certificate 16233TCS01.



**Technical documentation regarding EC type examination certificate 16233TCS01**

Product name: Utility Jacket, Art. 30719 5 00-07 Hi vis orange, Art. 30719 6 00-07 Hi vis yellow  
Utility Bib pants, Art. 30720 5 00-07 Hi vis orange, Art. 30720 6 00-07 Hi vis yellow

Applicant: Synfiber AS, Professor Birkelandsvei 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	2016-06-13	
2. Product drawing, construction, and material list	Sketches of the products	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 3.1-3.9	
3.1 FIOH assessment of relevant Directive basic requirements	2016-09-02	The applied harmonised standards EN ISO 13688:2013, EN ISO 20471:2013 and EN 343:2003+A1:2007 support the relevant requirements
3.2 Hohenstein test report	No. 2013 1911, 2013-10-01 Art. WP511, HV Orange, HV Yellow	Material and fluorescent colours meet the requirements of EN ISO 20471:2013 (5 washes at 60°C) and of EN 343:2003, class 3 for water penetration and class 3 for water vapour resistance
3.3 SGS test report	No. HZSL1411096154TX, 2014-12-17 Woven fabric with coating, black	Non-fluorescent colour meets the requirements of EN ISO 20471:2013
3.4 SGS test report	No. HZSL1409078529TX, 2014-10-16 100% PES brushed tricot in black No. HZSL1409078535TX, 2014-10-16 100% PES brushed tricot in black No. HZSL1409078536TX, 2014-10-21 100% PES in black for lining No. HZSL1310069653TX, 2013-10-17 Knitted mesh fabric, 100% PES, black	Non-fluorescent materials and colours meet the requirements of EN ISO 20471:2013
3.5 Satra test report	SPC0219613/1345, 2014-01-17 LOXY 9201	Retroreflective material meets the requirements of EN ISO 20471:2013 (50 x 60°C)
3.6 FIOH test record	No. 259863T01, 2014-07-09 Taped seam samples	Seams meet the requirements of EN 343:2003+A1:2007 for water penetration class 3 and seam strength



3.7 FIOH test record	Assessment of the design and measurements of areas, 2016-08-26	Jacket meets the minimum area requirements of class 3, trousers class 2 as defined in EN ISO 20471:2013. Areas of reflective and fluorescent materials: <ul style="list-style-type: none"><li>• Jacket size XS: 0.24 m<sup>2</sup>, 0.87 m<sup>2</sup></li><li>• Jacket size M: 0.22 m<sup>2</sup>, 0.87 m<sup>2</sup></li><li>• Trousers size XS: 0.14 m<sup>2</sup>, 0.50 m<sup>2</sup></li></ul>
3.8 Draft information sheet	EN 471/20471 High Visibility, Synfiber Workwear EN 343	Document meets the requirements of Directive 89/686/EEC, EN ISO 13688:2013, EN ISO 20471:2013 and EN 343:2003+A1:2007
3.9 Product markings	Drafts for labels, 2016-05-19	Markings meet the requirements of EN ISO 13688:2013, EN ISO 20471:2013 and EN 343:2003+A1:2007
4. Description of the production quality system and related product control and test facilities	Product quality control pointers, Synfiber Workwear	Adequate to category II products