



Finnish Institute of
Occupational Health

FIOH

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

EC TYPE EXAMINATION CERTIFICATE

17047GPS01

for high visibility clothing
as defined in EN ISO 20471:2013,
trousers 33017, 33018 and 33019 class 1,
trousers 30724 class 2

for minimum areas of visible materials
33017 Base Hi Vis Work Trousers,
33018 Base Hi Vis Work Trousers Lady,
33019 Base Hi Vis Work Trousers,
30724 Basic Hi Vis Trousers

Synfiber AS
Hagan, Norway

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

Helsinki, 28 April 2017
Expiry date: 27 April 2022

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1. Applicant

Synfiber AS
Brennaveien 6
N-1481 Hagan
Norway

2. Description and identification of the product

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

Trousers 33017, 33018 and 33019 class 1, trousers 30724 class 2 for minimum areas of visible materials

Name: 33017 Base Hi Vis Work Trousers, 33018 Base Hi Vis Work Trousers Lady, 33019 Base Hi Vis Work Trousers, 30724 Basic Hi Vis Trousers

Size range: Trousers 33017, 33019: 44 ->
Trousers 33018: 34 ->
Trousers 30724: XS ->

Description: Trousers are partly made of a fluorescent yellow or orange twill woven fabric, quality SY/SO003, 65% PES 35% CO, 245 g/m² (Wujiang Sanlian Printing & Dyeing Co. Ltd., China). Non-fluorescent material is twill woven fabric, 65% PES 35% CO, 245 g/m², in black colour (Zhejiang Huaxing Garment Co. Ltd., China).

Retroreflective materials are silver LOXY 9201 (Loxy AS, Norway) and silver quality B2067 (ESA Reflex (Shanghai) Co. Ltd., China).

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 complies with the relevant basic health and safety requirements stated in Directive 89/686/EEC Annex II as amended, last amended by 96/58/EC.

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

33017 Base Hi Vis Work Trousers



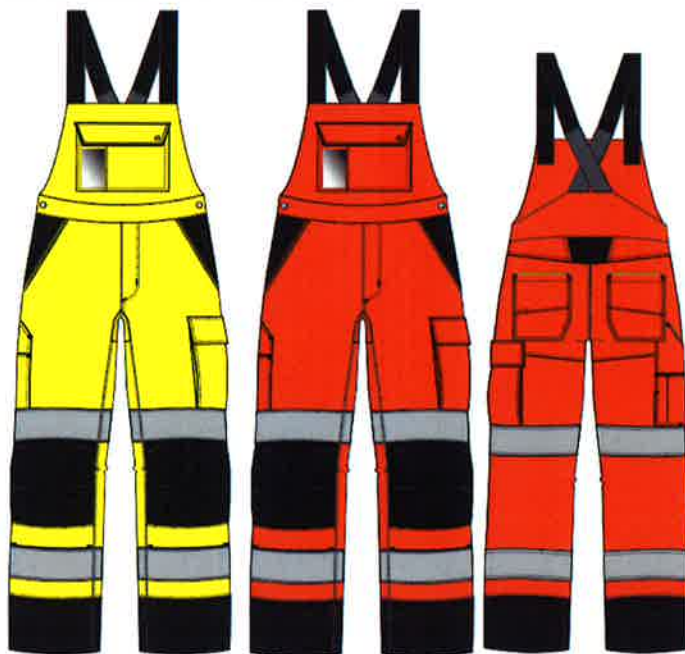
33018 Base Hi Vis Work Trousers Lady



33019 Base Hi Vis Work Trousers



30724 Basic Hi Vis Trousers



Appendix 1. Technical documentation

End of EC type examination certificate 17047GPS01.



Technical documentation regarding EC type examination certificate 17047GPS01

Product name: 33017 Base Hi Vis Work Trousers, 33018 Base Hi Vis Work Trousers Lady,
33019 Base Hi Vis Work Trousers, 30724 Basic Hi Vis Trousers

Applicant: Synfiber AS, Brennaveien 6, N-1481 Hagan, Norway

Item of technical documentation	Document identification	Assessment
1. Application for the EC type examination	2017-03-29	
2. Product drawing, construction, and material list	Sketches of the products Material lists Size charts	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	2017-04-28	The applied harmonised standards EN ISO 13688:2013 and EN ISO 20471:2013 support the relevant requirements
3.2 BTG test reports	Ref: 11/19079/A/PJH, 2014-02-18 Twill SY003, HV Yellow Ref: 11/19079/B/PJH, 2014-02-18 Twill SO003, HV Orange	Fluorescent material and colours meet the requirements of EN ISO 20471:2013 (5 wash cycles at 40°C)
3.3 SGS test reports	No. HZSL1610087547TX, 2016-10-19 65% PES 35% CO, HV Yellow No. HZSL1610089030TX, 2016-11-02 65% PES 35% CO, HV Orange	Fluorescent colours meet the requirements of EN ISO 20471:2013 for coordinates and luminance after 5 washes at 60°C
3.4 SGS test report	No. HZSL1609078241TX, 2016-09-24 65% PES 35% CO twill, HV Yellow, HV Orange	Fluorescent colours meet the requirements of EN ISO 20471:2013 for colour fastness to laundering at 60°C
3.5 SGS test report	No. HZSL1511091623TX, 2015-11-18 65% PES 35% CO twill, Black	Non-fluorescent colour meets the requirements of EN ISO 20471:2013 for colour fastness
3.6 FIOH test report	No. 336140T02, 2016-11-04 LOXY 9201	Retroreflective material meets the requirements of EN ISO 20471:2013 (70 wash cycles at 60°C)
3.7 SATRA test report	Ref: SPC0218408/1407/1, 2014-06-27 B2067	Retroreflective material meets the requirements of EN ISO 20471:2013 (100 wash cycles at 60°C)
3.8 FIOH test record	Assessment of the design and measurements of areas, 2017-04-12 and 2017-04-26	Trousers 33017, 33018 and 33019 meet the requirements of class 1 and trousers 30724 of class 2 as defined for minimum areas of visible materials in EN ISO 20471:2013. Areas of visible materials in samples: Trousers 33017, size 44: reflex 0.11 m ² , fluorescent 0.19 m ² Trousers 33018, size 34: reflex 0.11 m ² , fluorescent 0.17 m ² Trousers 33019, size 44: reflex 0.10 m ² , fluorescent 0.19 m ² Trousers 30724, size XS: reflex 0.15 m ² , fluorescent 1.00 m ²



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 for labels, art. 33017, 33018, 33019, 30724	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	BSCI Audit Summary Report, Audit id: 45595, 2016-03-23 Lin'an Shengfeng Garment Co., Ltd.	Adequate to category II products