



Finnish Institute of
Occupational Health

FIOH

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

EC TYPE EXAMINATION CERTIFICATE

16498CTS01

for high visibility clothing
as defined in EN ISO 20471:2013,
class 1 for minimum areas of visible materials

Hi Vis Shorts

art. 30722 6 Yellow/Black,

art. 30722 5 Orange/Black

Synfiber AS

Oslo, Norway

This product complies with Directive 89/686/EEC,
as amended

Helsinki, 20 January 2017
Expiry date: 19 January 2022

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Senior Specialist

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Specialist



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

Class 1 for minimum areas of visible materials

Name: Hi Vis Shorts, art. 30722 6 Yellow/Black, art. 30722 5 Orange/Black

Size range: S ->

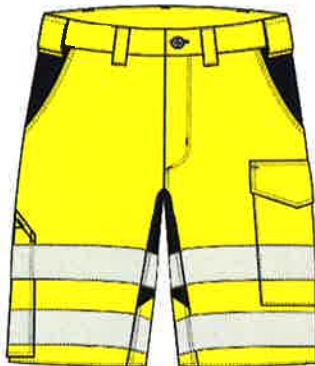
Description: Shorts are partly made of a fluorescent yellow or orange twill woven fabric, quality SY/SO003, 65% PES 35% CO, 245 g/m² (Wujiang Sanlian Printing & Dyeing Co. Ltd., China). Non-fluorescent material is twill woven fabric, 65% PES 35% CO, 245 g/m², in black colour (Zhejiang Huaxing Garment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

Retroreflective material is silver LOXY 9201 (Loxy AS, Norway).

Manufacturer: Zhejiang Huaxing Garments Co. Ltd., China

Pictures of the products

art. 30722 6 Yellow/Black



art. 30722 5 Orange/Black



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 product have been tested in accordance with a harmonized European standard EN ISO 20471:2013 by accredited testing laboratories. The model of the product supplied by the applicant conforms to the technical documentation.



4. Compliance with basic health and safety requirements

The product and the technical documentation relating to it 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 this type examined product must be brought to the attention of FIOH.

Appendix 1. Technical documentation

End of EC type examination certificate 16498CTS01.



Technical documentation regarding EC type examination certificate 16498CTS01

Product name: Hi Vis Shorts, art. 30722 6 Yellow/Black, art. 30722 5 Orange/Black

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	2016-12-02	
2. Product drawing, construction, and material list	Sketch of the product Material list Size chart, 2016-12-07	Product is 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	2017-01-20	The applied harmonised standards EN ISO 13688:2013 and EN ISO 20471:2013 support the relevant requirements
3.2 BTTG 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. 336140T01, 2016-10-04 LOXY 9201	Retroreflective material meets the requirements of EN ISO 20471:2013 (50 wash cycles at 60°C)
3.7 FIOH test record	Assessment of the design and measurements of areas, 2016-12-20	Shorts meet the requirements of class 1 as defined for minimum areas of visible materials in EN ISO 20471:2013. Areas in shorts 30722, size S: reflex 0.13 m ² , fluorescent 0.29 m ²
3.8 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
3.9 Product markings	Drafts for labels, art. 30722 6, art. 30722 5	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