



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

EC TYPE EXAMINATION CERTIFICATE

16164MWS01rev1

for electrostatic dissipative protective clothing
against heat and flame, thermal effects of electric arc
and for use in welding and allied processes
as defined in EN 1149-5:2008, EN ISO 11612:2015, A1+A2 B2 C2 F2,
IEC 61482-2:2009 class 1 (4 kA),
and EN ISO 11611:2015 class 1 A1+A2

**Multi-Layer Anti-Static Welding Clothing
Coverall 76654**

Red Wing Shoe Company Inc.
Minnesota, USA

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

Helsinki, 16 October 2017
Expiry date: 15 October 2022

Minna Torenius
Specialist

Erja Tammela
Senior Specialist



1. Applicant

Red Wing Shoe Company Inc.
314 Main Street
Red Wing
55066 Minnesota
USA

2. Description and identification of the product

Type: Electrostatic dissipative protective clothing against heat and flame, and thermal effects of electric arc for use in welding and allied processes as defined in EN 1149-5:2008, EN ISO 11612:2015, IEC 61482-2:2009 and EN ISO 11611:2015

EN ISO 11612: Performance levels A1+A2 B2 C2 F2
IEC 61482-2: Class 1 (4 kA)
EN ISO 11611: class 1 A1+A2

Name: Multi-Layer Anti-Static Welding Clothing
Coverall 76654

Description: Coverall can be made of the following materials:

- Quality 19: Art# 502551, 98% CO, 2% Carbon, 250 g/m² (Daletec AS, Norway)
- Quality 21: Art# Flashguard TM VRE130 5.8/6.5, 48% Tencel, 39% MAC, 12% para-aramid, 1% carbon, Twill, 220 g/m² (Springfield LLC, USA)
- Quality 29: Art# 642881, 74% CO, 24% PES, 2% Carbon, 290 g/m² (Daletec AS, Norway)
- Quality 30: Art# 503551, 98% CO, 2% Carbon, Satin, 350 g/m² (Daletec AS, Norway).

Garments are insulated with a quilted lining and optionally with PU membrane, 90 g/m².

Optional wadding materials:

- Meida, 100% PES, 150 g and 200 g with scrim
- 3M Thinsulate, 150 g and 200 g with scrim (3M, Minnesota, USA)

Optional inner lining materials:

- Art# 101731, 100% CO, 170 g/m² (Daletec AS, Norway)
- Art# ZAE002, 100% CO, 170 g/m² (Shenzhen Tecron Safety Co. Ltd., China)
- Art# F.R21*21*108*58*57"/58", 100% CO, 205 g/m² (Xinxiang Xinxing Special Fabric Co. Ltd., China)

Cuffing material is Miraflex knitted cuffing material, PES/WO (Miraflex, UK) or Modastatic knit single jersey, 60% MAC/38% CO/2% antistatic fiber, 200 g/m². Elastic bands are supplied by Alge Elastic GmbH., Austria.

Garments can be provided with the following alternative retroreflective materials:

- Loxy art. 9801 Silver (Sto-Nor Industri AS, Norway)
- Loxy art. 9808 Trim yellow/silver/yellow (Sto-Nor Industri AS, Norway)
- 3M Scotchlite 9687 Trim yellow/silver/yellow (3M, Minnesota, USA).

Representative in Europe:

Red Wing Shoe BV, Van Diemenstraat 272, NL-1013 CR Amsterdam, Netherlands



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 harmonized European standards EN 1149-5:2008, EN ISO 11612:2015, IEC 61482-2:2009 and EN ISO 11611:2015 by accredited testing laboratories. The model of the product supplied by the applicant conforms to the technical documentation.

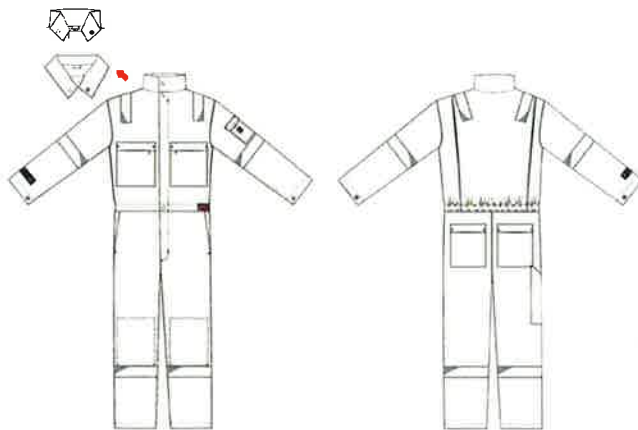
4. Compliance with basic health and safety requirements

The product and the technical documentation relating to it comply 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.

Picture of the product

Coverall 76654



Appendix 1. Technical documentation

End of EC type examination certificate 16164MWS01rev1.



Technical documentation regarding EC type examination certificate 16164MWS01rev1

Product name: Multi-Layer Anti-Static Welding Clothing
Coverall 76654

Applicant: Red Wing Shoe Company Inc., 314 Main Street, Red Wing, 55066 Minnesota, USA

Item of technical documentation	Document identification	Assessment
1. Application for the EC type examination	2016-05-05 Revision request, 2017-10-02	
2. Product drawing, construction, and material list	Garment specification, 2016-05-18	Product is are identified and described, materials are specified
3. Compliance with Directive 89/686/EEC relevant basic requirements	The compliance assessment is based on reports mentioned below items 3.1-3.20	
3.1 FIOH assessment of relevant Directive basic requirements	2017-10-16	The applied harmonised standards EN ISO 13688:2013, EN 1149-5:2008, EN ISO 11612:2015 and EN ISO 11611:2015 support the relevant requirements
3.2 West Yorkshire Materials Testing Service test report	No. 65500, 2014-07-09 No. 64876-1, 2014-07-09 No. 66726-02, 2014-10-24 No. 69476, 2015-03-25 Art. 502551/53 (quality 19)	Material meets the requirements of EN ISO 11612:2015, A1 A2 B1 C1, EN ISO 11611:2015, class 1 A1 A2, EN 1149-5:2008 and IEC 61482-2:2009 class 1 (4 kA)
3.3 FIOH test report	No. 256457T01, 2014-08-22 Flashguard TM VRE130 5.8/6.5 (quality 21)	Material meets the requirements of EN ISO 11612:2015, A1 A2 B1 C1, EN 1149-5:2008 and IEC 61482-2:2009 class 1 (4 kA)
3.4 Aitex test report	No. 2016EP0726, 2016-04-04 Flashguard TM VRE130 5.8/6.5 (quality 21)	Material meets the requirements of EN ISO 11611:2015 class 1
3.5 West Yorkshire Materials test report	No. 57165, 2013-03-19 No. 57165-01, 2013-04-08 No. 57165-02, 2013-04-15 Quality 29, Art# 642881	Materials meet the requirements of EN ISO 11612:2015, A1 B1 C1, EN ISO 11611:2015 class 1 A1 and EN 1149-5:2008
3.6 FIOH test report	No. 364104T01, 2017-10-02 Quality 29, Art# 642881	Material meets the requirements of EN ISO 11612:2015 and EN ISO 11611:2016 for limited flame spread A2
3.7 STFI test report	Certificate of Test No. Z 4071/09-5166/09, 2009-03-27 Quality 29, Art# 642881	Materials meet the requirements of IEC 61482-2:2009 class 1 (4 kA)
3.8 West Yorkshire Materials Testing Service test report	No. 56633, 2013-03-01 No. 56633-01 No. 60220, 2013-05-03 No. 63454, 2014-02-12 No. 56633-04, 2013-04-17 Quality 30, Art# 503551	Material meets the requirements of EN ISO 11612:2015, A1 A2 B1 C1 E1 F1, EN ISO 11611:2015 class 1 A1 A2, EN 1149-5:2008 and IEC 61482-2:2009 class 1 (4 kA)
3.9 FIOH test report	No. 163631T01rev1, 2011-06-30 Assembly of Quality 30, Art# 603581, with wadding G150 and inner lining 170 g/m ²	Material assembly meets the requirements of EN ISO 11612:2015, flame spread A1+A2 B2 C2 F2
3.10 West Yorkshire Materials Testing Service test report	No. 36291, 2008-08-22 Art# 101731	Inner lining material meets the requirement of EN ISO 14116:2015 for flame spread, index 3



3.11 SGS test report	No. SHSL1102007090TX, 2011-03-03 170 g/m ² Woven plain weave FR lining fabric, 100% cotton	Inner lining material meets the requirement of EN ISO 14116:2015 for flame spread, index 3
3.12 SGS test report	No. QD1104529-1/TX, 2011-04-19 Woven 100% cotton F.R21*21*108*58*57"/58"	Inner lining material meets the requirement of EN ISO 14116:2015 for flame spread, index 3
3.13 Aitex test report	No. 2011EP0535, 2011-06-22 Coverall 604 in quality 30	Garment meets the requirements of IEC 61482-2:2009 class 1 (4 kA). Result can be applied to the garments with the same type of quality and accessories
3.14 FIOH test certificate	No. 325539T01rev1, 2016-11-11 LOXY 9801	Retroreflective material meets the requirements of EN ISO 20471:2013, EN ISO 11612:2015 for limited flame spread and heat resistance and EN 1149-5:2008
3.15 Satra test report	Ref: SPC0218279/1338/4, 2013-09-30 Loxy 9808 Trim	Retroreflective material meets the requirements of EN ISO 20471:2013 and EN ISO 14116:2015 index 3, and of EN ISO 11612:2015 for heat resistance
3.16 FIOH test report	No. 300432T01, 2015-03-17 3M Scotchlite 9687 Fire Coat Trim Fluorescent yellow-silver-fluorescent yellow	Retroreflective material meets the requirements of EN ISO 20471:2013 and EN ISO 11612:2015 for limited flame spread A1 and heat resistance
3.17 FIOH test report	No. 163633T01rev1, 2011-06-30 Seam, chain stitch with overlocking and two stitchings	Seam meets the requirements of EN ISO 11612:2015 for limited flame spread A1+A2 and for seam strength
3.18 STFI test report	No. 2015 1373.4, 2015-08-03 Plastic snap button type DPV 300/15	Plastic snap buttons meet the requirements of EN ISO 11612:2015 for heat resistance and limited flame spread A1
3.19 Draft information sheet	User information	Document meets the requirements of the Directive, EN ISO 13688:2013, EN 1149-5:2008, EN ISO 11612:2015, IEC 61482- 2:2009 and EN ISO 11611:2015
3.20 Product markings	Draft of marking in the garment specification	Marking meets the requirements of EN ISO 13688:2013, EN 1149- 5:2008 and EN ISO 11612:2015, IEC 61482-2:2009 and EN ISO 11611:2015
4. Description of the production quality system and related product control and test facilities	ISO 9001:2008 Certificate No. 43276, 2012-05-21	Agreement with FIOH on the EC quality control system for the final product (PPE category III product)