



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

EC TYPE EXAMINATION CERTIFICATE

16297TYS01rev1

for electrostatic dissipative high visibility clothing against heat and flame,
thermal effects of electric arc, for use in welding and allied processes
and against rain as defined in EN 1149-5:2008, EN ISO 20471:2013,
parka and jacket class 3, trousers class 1,
EN ISO 11612:2015, Winter Parka A1+A2 B2 C2 F2,
Jacket and trousers A1+A2 B1 C1 F1,
IEC 61482-2:2009 class 1 (4 kA),
EN ISO 11611:2015, class 1 A1+A2,
and EN 343:2003+A1:2007 water penetration class 3
water vapour resistance Winter Parka class 2, Jacket and Trousers class 3

**Multi-Layer Anti-Static FR Foul Weather
High Visibility Clothing
Styles Winter Parka 76708, Jacket 76768,
Trousers 76770**

Red Wing Shoe Company Inc.
Minnesota, USA

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

Helsinki, 16 October 2017
Expiry date: 15 October 2022

Minna Torenus
Specialist

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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 high visibility clothing against heat and flame, thermal effects of electric arc, for use in welding and allied processes and against rain as defined in EN 1149-5:2008, EN ISO 20471:2013, EN ISO 11612:2015, IEC 61482-2:2009, EN ISO 11611:2015 and EN 343:2003+A1:2007

EN ISO 20471: Parka and jacket class 3, trousers class 1
EN ISO 11612: Winter parka A1+A2 B2 C2 F2, Jacket and trousers A1+A2 B1 C1 F1
IEC 61482-2: Class 1 (4 kA)
EN ISO 11611: Class 1 A1+A2
EN 343: Water penetration class 3,
Water vapour resistance Parka class 2, Jacket and trousers class 3

Name: Multi-Layer Anti-Static FR Foul Weather High Visibility Clothing
Styles Winter Parka 76708, Jacket 76768, Trousers 76770

Description: Garments are made of Quality 29: Art# 642881, 74% CO, 24% PES, 2% Carbon, 290 g/m² (Daletec AS, Norway). Fluorescent parts are in fluorescent yellow colour 2080 and non-fluorescent parts in colours 5781 Night Blue or 3928 Red.

Membrane is Sympatex L2204 STX Main, 100% PES, 52 g/m² (Sympatex Technologies GmbH, Germany). Inner lining is Art# 101731, 100% CO, 170 g/m² (Daletec AS, Norway).

Winter Parka is provided with a Thinsulate insulation G100 with scrim between inner lining and insulation.

Retroreflective material is Loxy art. 9801 Silver (Loxy AS, Norway).

Representative in Europe: Red Wing Shoe BV, Van Diemenstraat 272, NL-1013 CR Amsterdam, Netherlands

Pictures of the styles 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 1149-5:2008, EN ISO 20471:2013, EN ISO 11612:2015, IEC 61482-2:2009, EN ISO 11611:2015 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, 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

Winter Parka 76708



Jacket 76768



Trousers 76770



Appendix 1. Technical documentation

End of EC type examination certificate 16297TYS01rev1.



Technical documentation regarding EC type examination certificate 16297TYS01rev1

Product name: Multi-Layer Anti-Static FR Foul Weather High Visibility Clothing
Styles Winter Parka 76708, Jacket 76768, Trousers 76770

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

<i>Item of technical documentation</i>	<i>Document identification</i>	<i>Assessment</i>
1. Application for the EC type examination	2016-07-12 Revision request, 2017-10-02	
2. Product drawing, construction, and material list	Garment specifications, 2016-07-13	Products 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 3.1-3.17	
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 20471:2013, EN ISO 11612:2015, EN ISO 11611:2015 and EN 343:2003 +A1:2007 support the relevant requirements
3.2 West Yorkshire Materials Testing Service test report	No. 62958, 2014-01-21 Quality 29, Art# 642881, colour 2080, HV Yellow	Material and colour meets the requirements of EN ISO 20471:2013 for a woven background material
3.3 West Yorkshire Materials Testing Service test report	No. 65056, 2014-05-01 Quality 29, Art# 642881, colour 5781, Night Blue No. 66077 (Amendment 2), 2014-09-18 Quality 29, Art# 642881, colour 3928 Red	Non-fluorescent colours meet the requirements of EN ISO 20471:2013
3.4 West Yorkshire Materials test report	No. 57165, 2013-03-19 No. 57165-02, 2013-04-15 No. 57165-01, 2013-04-08 Quality 29, Art# 642881	Materials meet the requirements of EN ISO 11612:2015, A1 B1 C1 E2 F1, EN 1149-5:2008 and EN ISO 11611:2015 class 1 A1
3.5 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
3.6 West Yorkshire Materials test report	No. 57165-04, 2013-05-21 Quality 29, Art# 642881	Material meets the requirements of IEC 61482-2:2009 class 1 (4 kA)
3.7 FIOH test report	No. 163631T01rev1, 2011-06-30 Assemblies of Quality 15 (220 g), 20 (250 g), 30 (350 g) with G150 insulation and inner lining 170 g/m ²	Materials meet the requirements of EN ISO 11612:2015 for limited flame spread A2. Material assemblies meet the requirements of EN ISO 11612:2008, A1+A2 B2 C2 F2
3.8 Aitex test report	No. 2011EP0532, 2011-06-21 Coverall 601 in quality 00 Art# 4531 (single-layer) No. 2011EP0533, 2011-06-22 Coverall 604 in quality 15, Art# 112241 (multi-layer)	Garments meet 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
3.9 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, index 3 for limited flame spread



3.10 Hohenstein test report	No. 16.1.12.0563, 2016-05-20 Sympatex STX Main	Membrane meets the requirements of EN 343:2003+A1:2007 class 3 for water penetration
3.11 Moratex test report	No. 297/2016, 2016-07-07 Outer material Art# 642881, Membrane Sympatex L2204 STX Main, Insulation 3M G100 Thinsulate, lining Art# 101731 No. 296/2016, 2016-07-07 Outer material Art# 642881, Membrane Sympatex L2204 STX Main, lining Art# 101731	Material assembly of Winter Parka meets the requirements of class 2 and that of Jacket and trousers class 3 as defined in EN 343:2003 +A1:2007 for water vapour resistance
3.12 Moratex test report	No. 298/2016, 2016-07-11 Seams of fabric membrane Sympatex L2204 STX Main	Seams meet the requirements of EN 343:2003+A1:2007 for water penetration class 3
3.13 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 of EN 1149-5:2008
3.14 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 and EN ISO 11611:2015 for limited flame spread A1+A1, and for seam strength
3.15 FIOH test record	Assessment of the design and measurement of the areas, 2016-08-11	Design of garments meets the requirements of EN ISO 20471:2013, EN 1149-5:2008, EN ISO 11612:2015, IEC 61482-2:2009 and EN ISO 11611:2015. Parka and jacket meets class 3, and trousers class 1 for areas of visible materials as defined in EN ISO 20471:2013
3.16 Draft information sheet	User information Heat and flame High Visibility Protection against rain	Documents meet the requirements of the Directive, EN ISO 13688:2013, EN 1149-5:2008, EN ISO 20471:2013, EN ISO 11612:2015, IEC 61482-2:2009, EN ISO 11611:2015 and EN 343:2003+A1:2007
3.17 Product markings	Drafts of markings in the garment specifications	Markings meet the requirements of EN ISO 13688:2013, EN 1149-5:2008, EN ISO 20471:2013, EN ISO 11612:2015, IEC 61482-2:2009, EN ISO 11611:2015 and EN 343:2003+A1:2007
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)