



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

# EC TYPE EXAMINATION CERTIFICATE

12069NTS01rev9

for protective clothing against heat and flame  
and thermal effects of electric arc  
as defined in EN ISO 11612:2015, A1+A2 B1 C1,  
and IEC 61482-2:2009 class 1 (4 kA)  
**Single-Layer Non-Anti-Static Protective Clothing**  
**Coveralls 600, 601, 607, 608, 609, 727, 735,**  
**Vented Coverall V06,**  
**Jacket 620, Lab coat 628, Bib'n brace 640,**  
**Trousers 661, 664, Shirt 663, Vented Shirt V63**  
Red Wing Shoe Company Inc.  
Minnesota, USA

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

Helsinki, 10 August 2018  
Expiry date: 21 April 2023

Minna Torenus  
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: Protective clothing against heat and flame, and thermal effects of electric arc as defined in EN ISO 11612:2015 and IEC 61482-2:2009

EN ISO 11612: Performance levels A1+A2 B1 C1  
IEC 61482-2: Class 1 (4 kA)

Name: Single-Layer Non-Anti-Static Protective Clothing  
Coveralls 600, 601, 607, 608, 609, 727, 735, 76041, 76042, 76045,  
Vented Coverall V06  
Jacket 620, Lab coat 628, Bib'n brace 640, Trousers 661, 664,  
Shirt 663, Vented Shirt V63

Description: Garments can be made of the following alternative outer materials:

- Quality 20: Art# 802536, 100% CO, Twill, 250 g/m<sup>2</sup> (Daletec AS, Norway)
- Quality 25: Art# Ultra soft style 301, 88% CO/12% Nylon, 235 g/m<sup>2</sup> (Westex Inc., USA)
- Quality 28: Art# 142831, 75% CO, 25% PES, 290 g/m<sup>2</sup> (Daletec AS, Norway).

Optional ventilation openings under arms and in mid back in coveralls are made of FR antistatic knitted fabric, 60% Modacrylic, 37% CO, 3% carbon, 210 g/m<sup>2</sup>. Zippers used are YKK Polyester Coil Zippers.

Ventilation openings in armpits of patterns V06 and V63 are made of mesh fabric quality BFCZ-083K, 98% Protex modacrylic, 2% PES, 160 g/m<sup>2</sup> (Changshu Baofeng Special Fiber Co. Ltd., China).

Garments can be provided with the following alternative retroreflective materials:

- Loxy art. 9801 Silver (Loxy AS, Norway)
- Loxy art. 9808 Trim yellow/silver/yellow (Loxy 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, the Netherlands

Pictures of the standard patterns and specific styles are shown in Appendix 2. The style number comprises of 5 digits including the pattern number followed by the quality number.



### **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 of the products have been tested in accordance with harmonized European standards EN ISO 11612:2015 and IEC 61482-1-2:2007 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.

Appendix 1. Technical documentation

Appendix 2. Pictures of the different standard patterns and specific styles

End of EC type examination certificate 12069NTS01rev9.



## Technical documentation regarding EC type examination certificate 12069NTS01rev9

Product name: Single-Layer Non-Anti-Static Protective Clothing

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

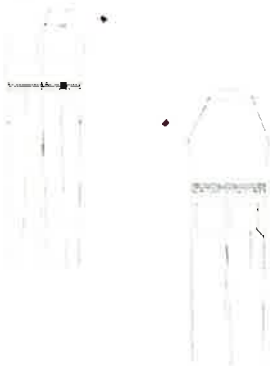

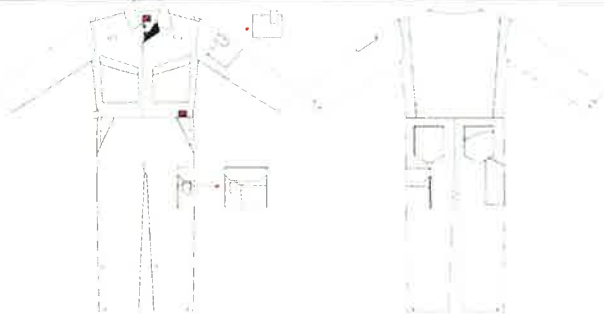
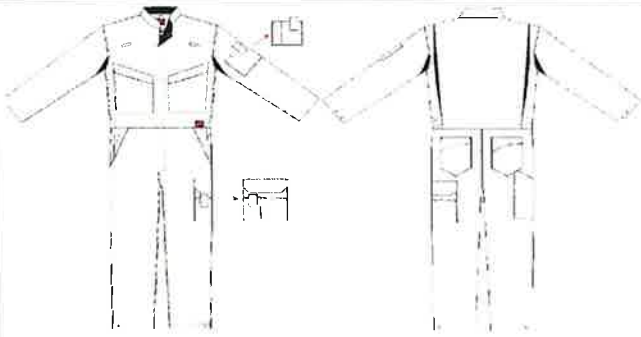
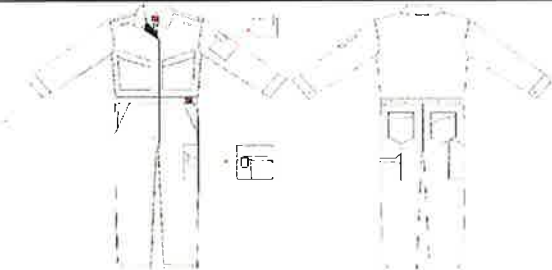

| <i>Item of technical documentation</i>                              | <i>Document identification</i>  | <i>Assessment</i>  |
|---|---|--|
| 1. Application for the EC type examination                          | 2012-02-12<br>E-mail, 2013-05-24<br>2013-07-16 (Patterns 737 and 727)<br>2014-07-08 (Quality 16)<br>2014-10-07 (Quality 28)<br>2014-11-21<br>Material update request,<br>2016-12-15<br>Revision request, 2017-10-02<br>2018-07-11 (Patterns V06, V63) |  |
| 2. Product drawing, construction, and material list                 | Garment specifications  | 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 3.1-3.18  |  |
| 3.1 FIOH assessment of relevant Directive basic requirements        | 2018-08-10  | The applied harmonised standards EN ISO 13688:2013 and EN ISO 11612:2015 support the relevant requirements   |
| 3.2 West Yorkshire Materials Testing Service test report            | No. 67494, 2014-11-14<br>Quality 20, Art# 802536  | Material meets the requirements of EN ISO 11612:2015, A1 A2 B1 C1  |
| 3.3 West Yorkshire Materials Testing Service test report            | No. 67563, 2014-11-28<br>Quality 20, Art# 802536  | Material meets the requirements of IEC 61482-1-2:2007 class 1 (4 kA)   |
| 3.4 BTTG test report  | Ref: 30/02830/2, 2006-09-25<br>Quality 25, Art# Indura Ultra Soft s/301   | Material meets the requirements of EN ISO 11612:2015, A1 B1 C1   |
| 3.5 STFI test report  | Test Certificate No. Z 3708/08-4785/08, 2008-06-20<br>Quality 25, Art# Indura Ultra Soft S/301  | Material meets the requirements of IEC 61482-1-2:2007 class 1 (4 kA)   |
| 3.6 West Yorkshire Materials Testing Service test report            | No. 38652-01, 2009-07-03<br>Quality 28, Art# 142831   | Material meets the requirements of EN ISO 11612:2015, A1 B1 C1   |
| 3.7 FIOH test report  | No. 364104T01, 2017-10-02<br>Quality 28, Art# 142831  | Material meets the requirements of EN ISO 11612:2015 for limited flame spread A2   |
| 3:8 STFI test report  | No. 0415/08, 2009-04-25<br>Quality 28, Art# 142831  | Material meets the requirements of IEC 61482-1-2:2007 class 1 (4 kA)   |
| 3.9 SGS test report   | No. SL517252776566TX,<br>2017-11-06<br>FR mesh BFCZ-083K  | Material meets the requirements of EN ISO 11612:2015 for limited flame spread A1   |
| 3.10 FIOH test report   | No. 163633T01rev1, 2011-06-30<br>Seam, chain stitch with overlocking and two stitchings   | Seam meets the requirements of EN ISO 11612:2015 for limited flame spread A1+A2 and seam strength  |
| 3.11 Aitex test report  | No. 2011EP0533, 2011-06-22<br>Coverall 601 in Art# 112241   | 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 |



|   |  |   |
|---|--|---|
| 3.12 FIOH test report   | No. 176124T01, 2011-09-27<br>FR Antistatic Modacrylic Cotton Knit                            | Ventilation opening material meets the requirements of EN ISO 11612:2015, A1 B1 C1  |
| 3.13 FIOH test certificate  | No. 325539T01rev1, 2016-11-11<br>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  |
| 3.14 Swerea IVF test report   | Test Certificate, 2004-11-26<br>Stonor art. 9808   | Retroreflective material meets the requirements of EN ISO 20471:2003 and EN ISO 14116:2015 index 3 for limited flame spread   |
| 3.15 MTL certificate of test  | Certificate of Test, 2005-06-03<br>3M Scotchlite 9687 Fluorescent lime-yellow fire coat trim | Retroreflective material meets the requirements of EN ISO 20471:2013 for retroreflection (silver part) and for chromaticity (yellow part), and EN 469:2005 for heat resistance and for retroreflection after exposures to heat and radiant heat |
| 3.16 FIOH test report   | No. 362772T01, 2017-09-04<br>YKK Polyester Coil Zipper on fabrics Q11 & 21 and Q15           | Zipper meets the requirements of EN ISO 11612:2015 for limited flame spread A1 and heat resistance  |
| 3.17 Draft information sheet  | User information   | Document meets the requirements of the Directive, EN ISO 13688:2013, EN ISO 11612:2015 and IEC 61482-2:2009   |
| 3.18 Product markings   | Drafts of markings in the garment specifications   | Markings meet the requirements of EN ISO 13688:2013, EN ISO 11612:2015 and IEC 61482-2:2009   |
| 4. Description of the production quality system and related product control and test facilities | ABS Quality Evaluations, Inc.<br>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)   |



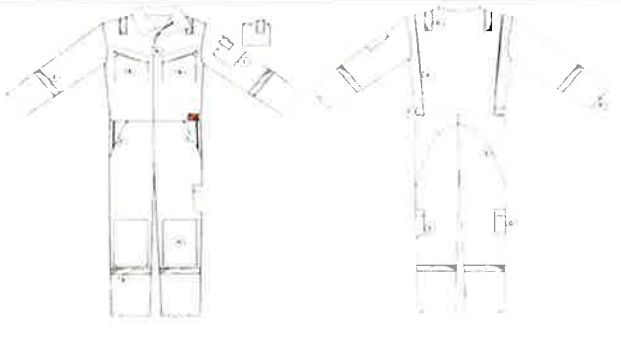

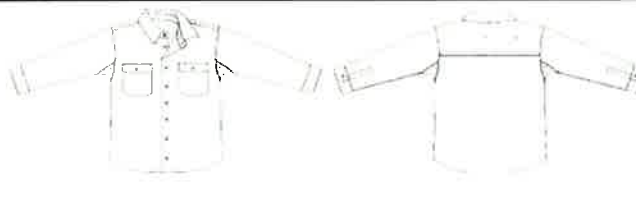
**Pictures of the different basic standard patterns and specific styles**

|   |  |
|---|--|
| Style RW 600 FR Coverall<br>   | Style RW 601 FR Coverall<br>   |
| Style RW 607 FR Coverall<br> | Style RW 608 FR Coverall<br> |
| Style RW 609 FR Coverall<br> | Style RW 620 FR Jacket<br>   |



|   |  |
|---|--|
| Style RW 628 FR Lab Coat  | Style RW 640 Bib and Brace   |
|    |    |
| Style RW 661 Trousers   | Style RW 663 FR Shirt  |
|   |   |
| Style RW 664 FR Trousers  | Style RW 727 FR Coverall   |
|  |  |



|  |  |
|--|--|
| <b>Style RW 735 FR Coverall</b>  | <b>Vented Coverall V06</b>   |
|   |  |
| <b>Vented Shirt V63</b>  |  |
|  |  |