

TECHNICAL REPORT FOR EU TYPE-EXAM CERTIFICATION of Personal Protective Equipment (PPE)

EU TYPE EXAMINATION Nº:

UE-000146/00

APPLICATION DATE:

18/01/2022

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APPLICANT:

WELDAS EUROPE B.V
BLANKENWEG 18, 4612 RC BERGEN OP ZOOM
NETHERLAND

PPE TYPE:

APRON

REFERENCE (PPE):

38-4320

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ANNEX. - EU Type-Examination Certificate

1. PPE IDENTIFICATION

1.1 Description and photograph

Apron manufactured in black leather with grey leather at the seams. It presents snap buttons and an adjustable red strap that goes around the waist.

The partial protection garment has to be worn in combination with other garment that protects all the user's body. Garment references that can be used in combination with this PPE: 38-4328, 38-4330.



1.2 Description of the components

PPE components according to the information supplied by the manufacturer:

- Side split cowhide and grey leather at the seams.
- Snap buttons and adjustable red strap.

1.3 Sizes

The size chart supplied by the manufacturer:

One size (51x56 cm).

1.4 Samples given for certification

On date 14/01/2022, ten (10) aprons arrived in the laboratory.

2. CERTIFICATION SCOPE

- **EN ISO 13688:2013** and **EN ISO 13688:2013/A1:2021** Protective clothing – General requirements.
- **EN ISO 11611:2015** Protective clothing for use in welding and allied processes

For the protection of the torso of the user against the following risks:

- Risk of burning due to contact with small splashes of molten metal.
 - Risk of burning due to a short exposure to limited flame.
 - Risk of burning due to radiant heat.
 - Risk of short electric discharge.
- **EN 1149-5:2018** Protective clothing – Electrostatic properties – Part 5: Material performance and design requirements.

For the protection of the torso of the user against the following risk:

- Risk of burning due to incendiary discharges.

3. DOCUMENTATION SUBMITTED

Technical documentation, including the next points:

- Complete description of the PPE and of its intended use
- Assessment of the risks against which the PPE is intended to protect
- List of the essential health and safety requirements that are applicable
- Design and manufacturing drawings and schemes of the PPE and of its components and explanations
- Reference of the harmonized standards and/ or other technical specifications
- Reports on the tests carried out to verify the conformity of the PPE
- A description of the means used by the manufacturer during the production (Modulo C)
 - Manufacturer's instructions
 - Marking
 - Declaration of conformity

4. RELATIONSHIP BETWEEN THIS EUROPEAN STANDARD AND ANNEX II OF REGULATION (EU) 2016/425 ON PPE

- **EN ISO 13688:2013** and **EN ISO 13688:2013/A1:2021** Protective clothing – General requirements.

| Essential Health and Safety Requirements, according to Annex II of Regulation (UE) 2016/425 | Clause(s) / sub-clause(s) of the standard EN ISO 13688:2013/A1:2021 | Result |
|---|---|--|
| 1.2.1 Absence of risk and other inherent nuisance factors | 5.3 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |
| 1.2.1.1 Suitable constituent materials | 4.2 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |
| 1.2.1.2 Satisfactory Surface condition of all PPE parts in contact with the user | 4.4 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |
| 1.4 Manufacturer's instructions and information | 8 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |
| 2.12 PPE bearing one or more identification markings or indicators directly or indirectly relating to health and safety | 6; 7 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |

- **EN ISO 11611:2015** Protective clothing for use in welding and allied processes

| Essential requirements of Annex II of the EU Directive 89/686/EEC ⁽¹⁾ | Clause(s) / sub-clause(s) of the standard EN ISO 11611:2015 | Result |
|--|---|--|
| 1.2.1. Absence of inherent risk and other nuisance factors | 4.1; 4.2; 4.3; 4.5; 4.6; 4.7; 6.6; 6.10 y 6.11 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |
| 1.3.1 Adaptation of PPE to user morphology | 4.4 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |
| 1.4 Manufacturer's instructions and information | 5.2; 8 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |
| 2.4 PPE subject to ageing | 5.3 | Meet <input type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input checked="" type="checkbox"/> |
| 1.3.2 Lightness and strength | 6.2; 6.3; 6.4 y 6.5 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |
| 3.6.1 PPE constituent materials and other components | 6.7; 6.8; 6.9 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |
| 3.6.2 Complete PPE ready for use | 6.8; 6.9 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |
| 1.1.2.2 Classes of protection appropriate to different levels of risk | 6.1; 6.8 y 6.9 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |
| 2.12 PPE bearing one or more identification markings or indicators direct | 7 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |

- **EN 1149-5:2018** Protective clothing – Electrostatic properties – Part 5: Material performance and design requirements

| Essential Health and Safety Requirements, according to Annex II of Regulation (EU) 2016/425 | Clause(s) / sub-clause(s) of the standard EN 1149-5:2018 | Result |
|---|--|--|
| 1.4 Manufacturer's instructions and information | 4.1 y 6 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |
| 2.6 PPE for use in potentially explosive atmospheres | 4.2 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |
| 2.12 PPE bearing one or more identification markings or indicators directly or indirectly relating to health and safety | 5 | Meet <input checked="" type="checkbox"/> |
| | | Not meet <input type="checkbox"/> |
| | | Not applicable <input type="checkbox"/> |

5. DESIGN EVALUATION

- **EN ISO 11611:2015** Protective clothing for use in welding and allied processes

| Requirement |
|---|
| After design evaluation according to point 4 of EN ISO 11611:2015, the PPE is determined to be: |
| Conforming <input checked="" type="checkbox"/> Non-conforming <input type="checkbox"/> |

- **EN 1149-5:2018** Protective clothing – Electrostatic properties – Part 5: Material performance and design requirements

| Requirement |
|---|
| After design evaluation according to point 4.2.2 of Standard EN 1149-5:2018, the PPE is determined to be: |
| Conforming <input checked="" type="checkbox"/> Non-conforming <input type="checkbox"/> |

6. COMFORT EVALUATION

- **EN ISO 13688:2013 and EN ISO 13688:2013/A1:2021** Protective clothing – General requirements.

| Requirement |
|---|
| After the comfort evaluation according to point 4.4 of Standards EN ISO 13688:2013 and EN ISO 13688:2013/A1:2021, the PPE is determined to be: <p style="text-align: right;">Conforming <input checked="" type="checkbox"/> Non-conforming <input type="checkbox"/></p> |

7. SIZING EVALUATION

- **EN ISO 13688:2013 and EN ISO 13688:2013/A1:2021** Protective clothing – General requirements.

| Requirement |
|---|
| After evaluation of the sizing according to point 6 and Annex D of Standard EN ISO 13688:2013 and EN ISO 13688:2013/A1:2021, it is determined that the PPE is: <p style="text-align: right;">Conforming <input checked="" type="checkbox"/> Non-conforming <input type="checkbox"/></p> |

8. SUMMARY OF RESULTS

| LEGEND RESULTS | |
|----------------|----------------|
| M | Meet |
| NM | Not meet |
| NA | Not applicable |
| NT | Not tested |

- EN ISO 13688:2013 and EN ISO 13688:2013/A1:2021 Protective clothing – General requirements.

| TEST | APPLIES ON | STANDARD | REQUIREMENTS | *UoM. | REPORT Nº | RESULT |
|--|--|---|---|--------|---------------------------|--------|
| Cr (VI) Innocuousness point 4.2 | Black leather / Grey leather | ISO 17075-1:2017 or ISO 17075-2:2017 | EN ISO 13688:2013/A1:2021, point 4.2, a) Shall not exceed < 3mg/kg | NA | AR-22-YL- 004012-01 | M |
| Nickel Innocuousness point 4.2 | Snap buttons | EN 1811:2011+A1:2015 | EN ISO 13688:2013/A1:2021, point 4.2, b) Shall have a release of nickel of less than < 0,5µg/cm ² per week. | ± 8 % | AR-22-YL- 004012-01 | M |
| pH Innocuousness point 4.2 | Red strap | Textile ISO 3071:2020 | EN ISO 13688:2013/A1:2021, point 4.2 c) Greater than 3,5 and less than 9,5 | ± 0,3 | AR-22-YL- 005339-01 | M |
| | Black leather / Grey leather | Leather ISO 4045:2018 | | | AR-22-YL- 004012-01 | |
| Azo colorants which release carcinogenic amines listed Innocuousness point 4.2 | Black leather / Grey leather | ISO 14362-1:2017 and ISO 14362- 3:2017 ⁽¹⁾ | EN ISO 13688:2013/A1:2021, point 4.2 Shall be no detectable | NA | AR-22-YL- 004012-01 | M |
| | Red strap | | | | AR-22-YL- 005339-01 | |
| Comfort point 4.4 | Protective clothing | EN ISO 13688:2013, point 4.4 and EN 13921 | EN ISO 13688:2013, point 4.4 and Annex C | NA | Point 6 of this report | M |
| Dimensional change due to cleaning after pre- treatment point 5.3 | Protective clothing o textile | Washed ISO 5077 | EN ISO 13688:2013 + EN ISO 13688:2013/A1:2021, point 5.3 ≤ ±3% (woven) or ≤ ±5% (Knitted) | NA | NA | NA |
| | | Dry cleaned ISO 3175-1 | | | | |
| General size designation point 6 | Protective clothing | ISO 8559-1:2017, EN ISO 13688:2013 + EN ISO 13688:2013/A1:202 1, point 6 and Annex D | EN ISO 13688:2013 + EN ISO 13688:2013/A1:2021, point 6 and Table 1 | ± 1 mm | Point 7 of this report | M |
| Marking point 7 | EN ISO 13688:2013 + EN ISO 13688:2013/A1:2021, point 7 and Annex E | | | NA | NA | M |
| Information supplied by the manufacturer point 8 | EN ISO 13688:2013 + EN ISO 13688:2013/A1:2021, point 8 | | | NA | NA | M |

⁽¹⁾The Azo colorants are tested according to ISO 17234-2:2011 and ISO 17234-1:2020 when leather material.

- EN ISO 11611:2015 Protective clothing for use in welding and allied processes

| TEST | APPLIES ON | STANDARD | REQUIREMENTS | *UoM. | REPORT N ^o | RESULT |
|---|---|---|---|---------|------------------------|--------------|
| General and design requirements point 4 | - | EN ISO 11611:2015, point 4 and EN ISO 13688 | EN ISO 11611:2015, point 4 | NA | Point 5 of this report | M |
| Pre-treatment ⁽¹⁾ point 5.2 | Materials / garment | - | EN ISO 11611:2015, point 5.2 | NA | NA | NA |
| Ageing ⁽¹⁾ point 5.3 | Materials / garment | - | EN ISO 11611:2015, point 5.3 | NA | NA | NA |
| Classification point 6.1 | Garment | EN ISO 11611:2015 | EN ISO 11611:2015, point 6.1, Annex A Class 1 Class 2 | NA | NA | Class 2 |
| Tensile strength point 6.2 | Woven outer material / Black leather | ISO 13934-1 (woven) ISO 3376 (leather) | EN ISO 11611:2015, point 6.2 ≥ 400N (woven) ≥ 80N (leather) | ± 8,4 N | AR-22-YL-004012-01 | M |
| Tear strength point 6.3 | Woven outer material / Black leather | ISO 13937-2 (woven) ISO 3377-1 (leather) | EN ISO 11611:2015, point 6.3 Class 1 ≥ 15N Class 2 ≥ 20N | ± 3,1 N | AR-22-YL-004012-01 | Class 2 M |
| Burst strength, after pre-treatment point 6.4 | Knitted outer materials | ISO 13938-1 or ISO 13938-2 | EN ISO 11611:2015, point ≥ 100 kPa (50cm ²) ≥ 200 kPa (7,3cm ²) | NA | NA | NA |
| | Structural seams in knitted materials | | | NA | NA | NA |
| Seam strength point 6.5 | Welt black leather-black leather seam | ISO 13935-2 | EN ISO 11611:2015, point 6.5 ≥ 225 N | ± 28 N | AR-22-YL-004012-01 | M |
| Dimensional change, after pre-treatment point 6.6 | Garment or each fabric layer | ISO 5077, point 6.6 | EN ISO 11611:2015, point 6.6 ≤ ±3% (woven) ≤ ±5% (leather) | NA | NA | NA |
| Limited flame spread of the new material (Procedure A) Outer face point 6.7.2 | Black leather | EN ISO 11611:2015, point 6.7.2, 6.7.3 and ISO 15025 | EN ISO 11611:2015, point 6.7.2 The flame does not reach the upper or either vertical edge No flaming or molten debris - No hole formation - Afterglow ≤ 2s - Afterflame ≤ 2s | + 8,8 % | AR-22-YL-004012-01 | M |
| Limited flame spread of the new material (Procedure B) ⁽¹⁾ point 6.7.3 | Black leather | | EN ISO 11611:2015, point 6.7.3 The flame does not reach the upper or either vertical edge No flaming or molten debris - Afterglow ≤ 2s - Afterflame ≤ 2s | + 8,8 % | AR-22-YL-004012-01 | M |
| Limited flame spread (Procedure A) point 6.7.2 | Welt black leather-black leather seam | | EN ISO 11611:2015, point 6.7.3 The flame does not reach the upper or either vertical edge No flaming or molten debris - Afterglow ≤ 2s - Afterflame ≤ 2s | + 8,8 % | AR-22-YL-004012-01 | M |
| Limited flame spread (Procedure B) ⁽¹⁾ point 6.7.3 | Welt black leather-black leather seam | | EN ISO 11611:2015, point 6.7.3 The flame does not reach the upper or either vertical edge No flaming or molten debris - Afterglow ≤ 2s - Afterflame ≤ 2s Seams do not separate | + 8,8 % | AR-22-YL-004012-01 | M |

| TEST | APPLIES ON | STANDARD | REQUIREMENTS | *UoM. | REPORT N ^o | RESULT |
|--|--|---------------------|---|---------|-----------------------|--------------|
| Limited flame spread (Procedure A) point 6.7.2 | Snap buttons / Buckle | | EN ISO 11611:2015, point 6.7.2 The flame does not reach the upper or either vertical edge No flaming or molten debris - Afterglow ≤ 2s - Afterflame ≤ 2s Closure system open at least once | + 8,8 % | AR-22-YL-004012-01 | M |
| | Red strap | | | | AR-22-YL-005339-01 | |
| Small splashes of molten metal point 6.8 | Black leather | ISO 9150 | EN ISO 11611:2015, point 6.8 Class 1: ≥ 15 and < 25 drops Class 2: ≥ 25 drops | ± 9,8 % | AR-22-YL-004012-01 | Class 2 M |
| Heat transfer (radiation) point 6.9 | Black leather | ISO 6942 (Method B) | EN ISO 11611:2015, point 6.9 Class 1: 16 > RHTI 24 ≥ 7 Class 2: RHTI 24 ≥ 16 | ± 11 % | AR-22-YL-004012-01 | Class 2 M |
| Electrical resistance point 6.10 | Black leather | EN 1149-2 | EN ISO 11611:2015, point 6.10 > 10 ⁵ Ω | ± 15 % | AR-22-YL-004012-01 | M |
| Fat content of leather point 6.11 | Black leather | ISO 4048:2008 | EN ISO 11611:2015, point 6.11 ≤ 15% | ± 4 % | AR-22-YL-103016-01 | M |
| Marking point 7 | EN ISO 11611:2015, point 7 + EN ISO 13688, point 7 | | | NA | NA | M |
| Information supplied by the manufacturer point 8 | EN ISO 11611:2015, point 8 + EN ISO 13688, point 8 | | | NA | NA | M |

- **EN 1149-5:2018** Protective clothing – Electrostatic properties – Part 5: Material performance and design requirements

| TEST | APPLIES ON | STANDARD | REQUERIMENTS | *UoM. | REPORT N ^o | RESULT |
|---|---|-----------------------------|--|--------|------------------------|--------|
| Material requirements point 4.2.1 | Electrostatic dissipative material | EN 1149-5:2018, point 4.2.1 | EN 1149-5:2018, point 4.2.1 | NA | NA | M |
| Half decay time (either geometric mean) ⁽¹⁾ point 4.2.1 | Black leather | EN 1149-3:2004 (Method 2) | EN 1149-5:2018, point 4.2.1 t ₅₀ < 4s. | ± 17 % | AR-22-YL-004012-01 | M |
| Shielding factor (arithmetic mean) ⁽²⁾ point 4.2.1 | External material | | EN 1149-5:2018, point 4.2.1 S > 0,2 | NT | NT | NT |
| Surface resistance (geometric mean) ⁽³⁾ point 4.2.1 | External material | EN 1149-1 | EN 1149-5:2018, point 4.2.1 ≤ 2,5 · 10 ⁹ Ω | NT | NT | NT |
| Design requirements point 4.2.2 | Garment | EN 1149-5:2018, point 4.2.2 | EN 1149-5:2018, point 4.2.2 | NA | Point 5 of this report | M |
| Conductive parts (if applicable) point 4.2.2.3 | Metal/conductive elements outside (slide fasteners, buttons, ...) | EN 60079-32-2:2015 | EN 1149-5:2018, point 4.2.2.3 < 3pF | NA | NA | NA |
| Marking point 5 | EN 1149-5:2018, point 5 | | | NA | NA | M |
| Information supplied by the manufacturer point 6 | EN 1149-5:2018, point 6 | | | NA | NA | M |

⁽¹⁾, ⁽²⁾ o ⁽³⁾ Not necessarily all three requirements

9. CONCLUSION

Based on the results obtained in the exams, evaluations and revisions the following can be deduced:

The PPE type **APRON** reference **38-4320**, classified as Category **II** Individual Protective Equipment and whose characteristics are stated in point 1 of this report, **COMPLIES** with the essential requirements established by Regulation (EU) 2016/425 of 9 March 2016 through the application of the standards and risks as stated in point 2 of this report.

On 22nd of December 2022

Signature of the conformity evaluator: