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

EU TYPE EXAMINATION Nº:

UE-000144/00

APPLICATION DATE: 18/01/2022

DATE OF ISSUE: 22/12/2022

APPLICANT:

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

PPE TYPE: JACKET

REFERENCE (PPE): 38-4350

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1. PPE IDENTIFICATION

1.1 Description and photograph

Garment that covers the upper body manufactured in grey fabric and black leather. It closes at the front by press buttons + hook and loop. The hook and loop acts as closure in the garments neck. The sleeve can be fasten by a press button.

1.2 Description of the components

PPE components according to the information supplied by the manufacturer:

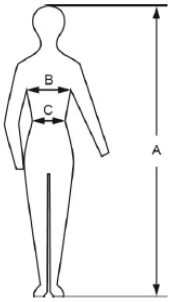
- Side split cowhide and Cotton flame retardant fabric with 520 g/m² is used with three ply KEVLAR®
- Press buttons and hook and loop fastening.

1.3 Sizes

The size chart supplied by the manufacturer:

	M	L	XL	2XL	3XL
	48	52	56	60	64
A	170-176	176-180	180-184	184-188	188-196
B	96-104	104-112	112-120	120-128	128-136
C	84-92	92-102	100-112	112-124	124-136

Sizing according to: EN ISO 13688 (in CM)



1.4 Samples given for certification

On date 14/01/2022, five (5) jackets each in sizes M, L, XL, XXL and XXXL were received at 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 and upper extremities of the user (except hands) 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 and upper extremities of the user (except hands) against the following risks:

- 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	☒
		Not meet	☐
		Not applicable	☐
1.2.1.1 Suitable constituent materials	4.2	Meet	☒
		Not meet	☐
		Not applicable	☐
1.2.1.2 Satisfactory Surface condition of all PPE parts in contact with the user	4.4	Meet	☒
		Not meet	☐
		Not applicable	☐
1.4 Manufacturer's instructions and information	8	Meet	☒
		Not meet	☐
		Not applicable	☐
2.12 PPE bearing one or more identification markings or indicators directly or indirectly relating to health and safety	6; 7	Meet	☒
		Not meet	☐
		Not applicable	☐

- **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	☒
		Not meet	☐
		Not applicable	☐
1.3.1 Adaptation of PPE to user morphology	4.4	Meet	☒
		Not meet	☐
		Not applicable	☐
1.4 Manufacturer´s instructions and information	5.2; 8	Meet	☒
		Not meet	☐
		Not applicable	☐
2.4 PPE subject to ageing	5.3	Meet	☐
		Not meet	☐
		Not applicable	☒
1.3.2 Lightness and strength	6.2; 6.3; 6.4 y 6.5	Meet	☒
		Not meet	☐
		Not applicable	☐
3.6.1 PPE constituent materials and other components	6.7; 6.8; 6.9	Meet	☒
		Not meet	☐
		Not applicable	☐
3.6.2 Complete PPE ready for use	6.8; 6.9	Meet	☒
		Not meet	☐
		Not applicable	☐
1.1.2.2 Classes of protection appropriate to different levels of risk	6.1; 6.8 y 6.9	Meet	☒
		Not meet	☐
		Not applicable	☐

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
2.12 PPE bearing one or more identification markings or indicators direct	7	Meet ☒ Not meet ☐ Not applicable ☐

[(1)] *Warning: In order to comply with this non-harmonized standard according to Regulation (EU) 2016/425, the risk assessment carried out by the manufacturer, in its technical documentation, shall be studied and thus assess whether or not it is necessary to add any requirement granting compliance with the applicable minimum essential health and safety requirements, for the type of risk to which the user may be exposed.*

- **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 ☒ Not meet ☐ Not applicable ☐
2.6 PPE for use in potentially explosive atmospheres	4.2	Meet ☒ Not meet ☐ Not applicable ☐
2.12 PPE bearing one or more identification markings or indicators directly or indirectly relating to health and safety	5	Meet ☒ Not meet ☐ Not applicable ☐

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 ☒ Non-conforming ☐

- **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 ☒ Non-conforming ☐

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: Conforming ☒ Non-conforming ☐

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: Conforming ☒ Non-conforming ☐

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	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
	Black leather covering the rivet on the inside				AR-22-YL-005339-01	
Nickel Innocuousness point 4.2	Snap button	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/cm² per week.	± 8 %	AR-22-YL-004012-01	M
pH Innocuousness point 4.2	Grey fabric / Hook and loop / Black leather	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-004012-01	M
	Black leather covering the rivet on the inside	Leather ISO 4045:2018			AR-22-YL-005339-01	
Azo colorants which release carcinogenic amines listed Innocuousness point 4.2	Grey fabric / Hook and loop / Black 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
	Black leather covering the rivet on the inside				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/A1:2021, 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 Nº	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	Grey fabric / Black leather	ISO 13934-1 (woven) ISO 3376 (leather)	EN ISO 11611:2015, point 6.2 ≥ 400N (woven) ≥ 80N (leather)	± 11 N / ± 8,4 N	AR-22-YL-004012-01	M
Tear strength point 6.3	Grey fabric / Black leather	ISO 13937-2 (woven) ISO 3377-1 (leather)	EN ISO 11611:2015, point 6.3 Class 1 ≥ 15N Class 2 ≥ 20N	± 1 N / ± 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 (50cm²) ≥ 200 kPa (7,3cm²)	NA	NA	NA
	Structural seams in knitted materials			NA	NA	NA
Seam strength point 6.5	Welt grey fabric-grey fabric seam / Open grey fabric-grey fabric seam	ISO 13935-2	EN ISO 11611:2015, point 6.5 ≥ 225 N	± 27 N / ± 24 N	AR-22-YL-008510-01	M
	Welt grey fabric-black leather seam / Welt black leather-black leather seam / Open black leather-black leather seam			± 20 N / ± 28 N / ± 25 N	AR-22-YL-004012-01	
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% (knitted)	NA	NA	NA
Limited flame spread of the new material (Procedure A) Outer face point 6.7.2	Black leather / Grey fabric	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 / Grey fabric		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

TEST	APPLIES ON	STANDARD	REQUIREMENTS	*UoM.	REPORT Nº	RESULT
Limited flame spread (Procedure A) point 6.7.2	Welt grey fabric-grey fabric seam / Open grey fabric-grey fabric 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-008510-01	M
	Welt grey fabric-black leather seam / Welt black leather-black leather seam / Open black leather-black leather seam			+ 8,8 %	AR-22-YL-004012-01	
Limited flame spread (Procedure B)(1) point 6.7.3	Open grey fabric-grey fabric seam			+ 8,8 %	AR-22-YL-008510-01	M
	Welt grey fabric-black leather seam				AR-22-YL-004012-01	
Limited flame spread (Procedure A) point 6.7.2	Hook and loop / Snap buttons		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
Small splashes of molten metal point 6.8	Black leather / Grey fabric	ISO 9150	EN ISO 11611:2015, point 6.8 Class 1: ≥ 15 and < 25 drops Class 2: ≥ 25 drops	± 9,8 % / ± 3 droplets	AR-22-YL-004012-01 / AR-22-YL-007259-01	Class 2 M
Heat transfer (radiation) point 6.9	Black leather / Grey fabric	ISO 6942 (Method B)	EN ISO 11611:2015, point 6.9 Class 1: 16 > RHTI 24 ≥ 7 Class 2: RHTI 24 ≥ 16	± 11 %/ ± 0,6 %	AR-22-YL-004012-01/ AR-23-YL-100632-01	Class 2 M
Electrical resistance point 6.10	Black leather / Grey fabric	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 Nº	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 / Grey fabric	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 **JACKET** reference **38-4350**, 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:

Digitally signed by MELODIE|RUIZ|CABEZUELO
Date: 2023.02.15 09:32:15 +01'00'