MAURITIAN STANDARD

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Protective clothing for use in welding and allied processes

PREVIEW

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Mauritius Standards Bureau
Moka

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National Foreword

This Mauritian Standard is identical with the International Standard **ISO 11611:2015**, *Protective clothing for use in welding and allied processes* published by the International Organization for Standardization (ISO). It was adopted by the Mauritius Standards Bureau on the recommendation of the **Textiles, Clothing and Footwear Committee** through its **Subcommittee on Protective Clothing** and approval of the **Standards Council** on **31 August 2015**. It was notified in the Government Gazette on **03 October 2015***.

For the purposes of this standard the following change should be made:

The words "International Standard" should be replaced by "Mauritian Standard".

The following Mauritian Standard is identical to the International Standard, which is referenced in the adopted standard:

International Standard	Corresponding Mauritian Standard
ISO 13688, *Protective clothing — General requirements*	**MS ISO 13688,** *Protective clothing — General requirements*

General notice no ……. of 2015

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 94, *Personal safety — Protective clothing and equipment*, Subcommittee SC 13, *Protective clothing*, and by Technical Committee CEN/TC 162, *Protective clothing including hand and arm protection and lifejackets* in collaboration.

This second edition cancels and replaces the first edition (ISO 11611:2007) which has been technically revised with the following changes:

— include an introduction;

— include a definition for hole;

— modify the clause in design requirements regarding garment overlaps;

— modify the clause in design requirements regarding garment sizes;

— modify the clause on sampling requirements;

— modify clause for ageing due to washing (maximum number of cleaning procedures as indicated by the manufacturer);

— modify the pre-treatment clause to include the requirements for single use garments;

— include a new requirement for measuring the property value for rating and classification;

— modify the requirements for tear strength;

— specify the test area for burst strength testing;

— modify the requirement that hardware is tested only after pre-treatment;

— include a statement for flame spread testing in regard to interlining materials;

— remove the reference to melting from flame spread requirements;

— modify the afterflame requirement for flame spread;

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— modify the afterglow requirement for flame spread;
— modify the test procedure for the flame testing of labels, badges, retro-reflective materials;
— modify requirement for the impact of spatter to state that materials cannot ignite;
— modify the innocuousness clause to include reference to ISO 13688;
— specify the limit for Chromium(VI) Content;
— modify the clause for information to be supplied by the manufacturer;
— include a new annex for measuring property value for rating and classification;
— include a new definition for uncertainty of measurement in Annex C;
— specify that Annex C is normative.

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Introduction

The purpose of this International Standard is to provide minimum performance requirements for clothing for use in welding and allied processes.

For complete protection against exposure to heat and flame, it will be necessary to protect the head, face, hands, and/or feet with suitable personal protective equipment (PPE) and in some cases, appropriate respiratory protection might also be considered necessary.

Attention is drawn to ISO/TR 2801:2007,[2] which sets out guidelines for selection, use, care, and maintenance of protective clothing against heat and flame.

Nothing in this International Standard is intended to restrict any jurisdiction, purchaser, or manufacturer from exceeding these minimum requirements.

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Protective clothing for use in welding and allied processes

1 Scope

This International Standard specifies minimum basic safety requirements and test methods for protective clothing including hoods, aprons, sleeves, and gaiters that are designed to protect the wearer's body including head (hoods) and feet (gaiters) and that are to be worn during welding and allied processes with comparable risks. For the protection of the wearer's head and feet, this International Standard is only applicable to hoods and gaiters. This International Standard does not cover requirements for feet, hand, face, and/or eye protectors.

This type of protective clothing is intended to protect the wearer against spatter (small splashes of molten metal), short contact time with flame, radiant heat from an electric arc used for welding and allied processes, and minimizes the possibility of electrical shock by short-term, accidental contact with live electrical conductors at voltages up to approximately 100 V d. c. in normal conditions of welding. Sweat, soiling, or other contaminants can affect the level of protection provided against short-term accidental contact with live electric conductors at these voltages.

For adequate overall protection against the risks to which welders are likely to be exposed, personal protective equipment (PPE) covered by other International Standards should additionally be worn to protect the head, face, hands, and feet.

Guidance for the selection of the type of welders clothing for different welding activities is detailed in Annex A.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3376:2011, *Leather — Physical and mechanical tests — Determination of tensile strength and percentage extension*

ISO 3377-1, *Leather — Physical and mechanical tests — Determination of tear load — Part 1: Single edge tear*

ISO 4048, *Leather — Chemical tests — Determination of matter soluble in dichloromethane and free fatty acid content*

ISO 5077, *Textiles — Determination of dimensional change in washing and drying*

ISO 6942, *Protective clothing — Protection against heat and fire — Method of test: Evaluation of materials and material assemblies when exposed to a source of radiant heat*

ISO 9150, *Protective clothing — Determination of behaviour of materials on impact of small splashes of molten metal*

ISO 13688, *Protective clothing — General requirements*

ISO 13934-1, *Textiles — Tensile properties of fabrics — Part 1: Determination of maximum force and elongation at maximum force using the strip method*

ISO 13935-2, *Textiles — Seam tensile properties of fabrics and made-up textile articles — Part 2: Determination of maximum force to seam rupture using the grab method*

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