भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDRADS

Draft For Comments Only Doc: TXD 32 (24728) WC
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भारतीय मानक मसौदा

वाइल्डलैंड अग्निशमन निजी सुरक्षा उपकरण — अपेक्षाएं और परीक्षण पद्धति — भाग 3: परिधान

Draft *Indian Standard*

Wildland firefighting personal protective equipment — Requirements and test methods — part 3: Clothing

ICS 13.340.10, 13.220.10

Textiles Protective Clothing Sectional Committee, TXD 32

Last date for receipt of comments is 30 March 2024

NATIONAL FOREWORD

(*Formal clauses will be added later*)

This Indian Standard intended to be adopted is identical with ISO 16073-3:2019 'Wildland firefighting personal protective equipment — Requirements and test methods — Part 3: Clothing' issued by the International Organization for Standardization (ISO).

This standard has been undertaken to harmonize it with the latest version of ISO 16073-3:2019.

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.
b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

The technical committee has reviewed the provisions of the following International Standards referred in this standard intended to be adopted and has decided that these are acceptable for use in conjunction with this standard:

International Standard	*Title*
ISO 15384	Protective clothing for firefighters — Laboratory test methods and performance requirements for wildland firefighting clothing
ISO 16073-2	Wildland firefighting personal protective equipment — Requirements and test methods — Part 2: Compatibility
ISO/TR 19591	Personal protective equipment for firefighters — Standard terms and definitions

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Extract of ISO 16073-3:2019 'Wildland firefighting personal protective equipment Requirements and test methods part 3: Clothing'

Introduction

Wildland firefighting involves work primarily in summer temperatures, for many hours in which the firefighter may develop high levels of metabolic heat. Loose-fitting clothing is as important as the fire resistance of materials in preventing serious burn injury. Clothing that is tight-fitting poses a danger to the wildland firefighter from radiant heat and heat stress, while, at the same time, diminishing the firefighter's ability to perform. Consequently, the protective clothing should be light, flexible and commensurate with the risks to which the firefighter may be exposed in order to be effective without introducing heat stress to the wearer.

Accordingly, a risk assessment (see ISO 21808) should be undertaken to determine if the clothing covered by this document is suitable for its intended use and the expected exposure. This document does not cover clothing for use in higher risk situations, where clothing complying with ISO 11999-3 (structural firefighting) or even ISO 15538 (firefighting with reflective outer surface), is more suitable, nor does this document cover clothing to protect against chemical, biological, electrical or radiation hazards. This document does not cover risk related to rescue operations that are covered in ISO 18639-3.

The risk assessment should include what additional personal protective equipment is necessary for the head, hand and feet. In some situations, respiratory protection may also be required.
Firefighters should be trained in the use, care and maintenance of the protective clothing covered by this document, including an understanding of its limitation.

The purpose of this document is to provide minimum performance requirements for protective clothing designed for use for extended periods during wildland firefighting activities. The minimum performance requirements and methods of test for personal protective equipment

(PPE) covering the head, hands, feet, eyes and ears for wildland firefighting are covered in other parts of ISO 16073.

1 Scope

This document specifies test methods and minimum performance requirements for personal protective clothing, designed to protect the wearer's body, except for the head, hands, and feet, that is worn during wildland firefighting and associated activities. This clothing is not intended to provide protection during fire entrapment. This document covers the general design of the garment, the minimum level of performance for the materials employed and the methods of test to determine these levels.

This document is not applicable to clothing for use in situations encountered in structural firefighting (ISO 11999-3), rescue (ISO 18639-3) or where a high level of infrared radiation is expected (ISO 15538), nor does this document cover clothing to protect against chemical, biological, electrical or radiation hazards. This document does not provide protection against high mechanical risks such as for protection when using chain saws.

NOTE For information on test methods, minimum performance requirements and general design refer to ISO 15384.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 15384, Protective clothing for firefighters — Laboratory test methods and performance requirements for wildland firefighting clothing

ISO 16073-2, Wildland firefighting personal protective equipment — Requirements and test methods — Part 2: Compatibility

ISO/TR 19591, Personal protective equipment for firefighters — Standard terms and definitions

3 Terms and definitions

For the purposes of this document, the terms and definitions in ISO/TR 19591 apply.

FORMAT FOR SENDING COMMENTS ON BIS DOCUMENTS

(Please use A4 size sheet of paper only and type within fields indicated. Comments on each clause/sub clause/table/fig etc. be started on a fresh box. Information in column 3 should include reasons for the comments and suggestions for modified working of the clauses when the existing text is found not acceptable. Adherence to this format facilitates Secretariat's work)

Please e-mail your comments to txd@bis.gov.in

NAME OF THE COMMENTATOR/ORGANIZATION:

DOCUMENT NO: TXD 32 (24728) WC

BIS LETTER REFERENCE NO. : TXD 32 (24728)

Item, Clause Sub-Clause No. Commented upon (Use Separate Box afresh)	**Comments**	**Specific Proposal (Draft clause to be add/amended)**	**Remarks**	**Technical References and justification on which (2), (3), (4) are based**
(1)	**(2)**	**(3)**	**(4)**	**(5)**