Forthcoming Changes to Standards

Standards are also subject to evolutionary processes: This publication provides an overview of those footwear-relevant standards for which changes are planned in the near future. These are the standards of the EN ISO 20344-7 series, PPE Foot and Leg Protection as well as the test procedures and specifications for safety, protective, and occupational footwear.

The EN ISO 20344-7 Series of Standards

Revision of the EN ISO 20344-7 series of standards started officially in August 2018 when withdrawal of EN ISO 20346 was recommended on the basis of a lack of demand.

Changes to ISO 22568 Parts 1 to 4 for footwear components, which were published in March 2019, necessitate adaptation of the instructions and requirements in the standards applicable to footwear. Thus, in future manufacturers can choose between two types of toe caps and three types of penetration-resistant insoles, depending upon the intended field of application and the foot protection objective.

Slip Resistance

Substantial changes to the testing methods and requirements for slip resistance are expected. The testing mode on Euro tile 2 with NaLS-water* (A, B, E) will become obligatory and introduced as a basic requirement without any additional indication. All other test modes (C, D, F, G) are to be seen as voluntary additional requirements with corresponding indication.

Basic requirement according to ISO 20344:2021, 5.14 E2 / NaLS without additional indication	Slip resistance coefficient
Mode A - Heel forward	≥ 0.31
Mode B - Flat forward [a]	≥ 0.39
Mode E – Toe backward	≥ 0.36
[a] to be withdrawn two years after publication of the standard; during the two-year transition period a choice is possible between Mode B and Mode E	

Additional requirement according to ISO 20344:2021, 6.2.10.1 E2 /glycerine – designation “SR”	Slip resistance coefficient
Modus F – Heel forward	≥ 0.19
Modus G - Toe backward	≥ 0.22

* Standardised lubricant, consisting of a 0.1-percent solution of sodium lauryl sulphate in deionised water

Additional requirement according to ISO 20344:2021, 6.2.10.2 steel plate / glycerine – designation “SRB”	Slip resistance coefficient
Mode C – Heel forward [a]	≥ 0.13
Mode D – Flat forward [a]	≥ 0.18
[a] to be withdrawn two years after publication of the standard	

The correction factor currently used for Euro tile 2 is no longer required.

The above-mentioned tests cannot be used for footwear design for special applications, for example with spikes or cleats. These shoes must bear the symbol “N” (*no slip resistance*).

Orthopaedic Fitting

The necessity of orthopaedic fitting of PPE is attracting increasing attention. The new PPE Regulation 2016/425 specifically addresses this topic. All PPE should protect the wearer against hazards at the workplace; this includes orthopaedically fitted or custom-made PPE.

A distinction is currently made between different kinds of orthopaedic safety, protective, and professional footwear and footwear fitting

- orthopaedic footbeds and insoles
- perfectly fitting footwear, semi-orthopaedic footwear
- custom-made footwear

All the protective properties affected by orthopaedic fitting have to be re-examined and meet the demands of the relevant specification. Owing to the many possibilities of orthopaedic fitting, a highly detailed and clear description is required of what is to be done under what set of conditions. For this reason, the specifications are supplemented by a normative annex on the topic of orthopaedics. Austria and Germany have a wealth of experience which is considered here.

Optional Additional Requirements

Two further optional requirements will be implemented for specific workplaces.

The first optional additional requirement is referred to as **"Ladder Grip"** (**LG)**; its purpose is to prevent slipping from the rungs of a ladder. The second one is known as **"Scuff Caps"** (**SC)** and refers to use of an abrasion-resistant material or component for protection against abrasion in the upper external toes area, especially during tasks requiring kneeling.

Fuel resistance of outer soles will also become an optional additional requirement. The specialist committee has examined the workplace situation and ascertained that contact with fuel is not to be expected at every workplace. After in-depth discussion, the committee suggested testing only those

sole materials which come into contact with the floor and are therefore subject to wear or impairment.

In order to facilitate the user's assessment of the degree of wear of PPE, the specifications should also be supplemented with sample images. Footwear manufacturers can include these images in user information materials.

The modifications described also necessitate changes to the designation which should enable the user to make the right choice for his or her workplace. The specialist committee is currently still looking for an acceptable and readily understandable way of communicating the protective features.

We will be sure to keep you up to date.

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