

**Protective clothing – Protection against heat and flame –  
Limited flame spread materials, material assemblies and clothing.**

**Reference Number:** EN 14116

**Status:** European Standard

**Scope:** This International Standard specifies the performance requirements for the limited flame spread properties of materials, material assemblies and protective clothing in order to reduce the possibility of the clothing burning and thereby itself constituting a hazard.

**CONTENT**

Remarks:

Additional requirements for clothing are also specified. Protective clothing complying with this International Standard is intended to protect workers against occasional and brief contact with small igniting flames, in circumstances where there is no significant heat hazard and without the presence of another type of heat.

When protection against heat hazards is necessary in addition to protection against limited spread flammability, then standards, such as ISO 11612, are more appropriate.

A classification system is given for materials, material assemblies and garments which are tested according to ISO 15025:2000, Procedure A.

Scope:

- Against brief contact with small igniting flames
- No significant heat hazard

The standard specifies 3 areas:

1. Performance requirements material
2. Design requirements
3. Marking & guidance

1) Performance requirements for woven fabrics (after pretreatment\*)

TEST	METHOD	REQUIREMENT
<b>Heat and flame requirements</b>		
Limited flame spread (code A) A1: surface ignition		Index 1 <ul style="list-style-type: none"> <li>• No flaming or hole formation to top or side edge</li> <li>• No flaming debris</li> <li>• No afterglow from carbonize area to undamaged area</li> </ul> Index 2 <ul style="list-style-type: none"> <li>• No flaming to top or side edge</li> <li>• No flaming debris</li> <li>• No afterglow from carbonize area to undamaged area</li> <li>• No hole formation</li> </ul> Index 3 <ul style="list-style-type: none"> <li>• No flaming to top or side edge</li> <li>• No flaming debris</li> <li>• No afterglow from carbonize area to undamaged area</li> <li>• No hole formation</li> <li>• Maximum 2 seconds afterflame</li> </ul>

\* Pretreatment:

The limited flame spread in EN ISO 14116 is also carried out after the maximum amount of cleaning cycles, set by the manufacturer based on standardized cleaning standards.

Cleaning methods:

- ISO 6330 Domestic laundry
- ISO 15797 Industrial laundry
- ISO 3175-1 Dry cleaning