

ISO 11999-6:2024-08 (E)

PPE for firefighters - Test methods and requirements for PPE used by firefighters who are at risk of exposure to high levels of heat and/or flame while fighting fires occurring in structures - Part 6: Footwear

| Contents | | Page |
|-----------------|--|-------------|
| Foreword | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 2 |
| 4 | Classification, design and performance level | 2 |
| 4.1 | Classification | 2 |
| 4.2 | Design | 2 |
| 4.3 | Innocuousness | 3 |
| 4.4 | Sizing | 3 |
| 5 | Sampling and conditioning | 3 |
| 5.1 | Sampling | 3 |
| 5.2 | Conditioning | 4 |
| 6 | Requirements | 4 |
| 6.1 | General requirement | 4 |
| 6.2 | Thermal behaviour | 7 |
| 6.2.1 | Insulation against heat | 7 |
| 6.2.2 | Radiant heat | 8 |
| 6.2.3 | Flame resistance | 8 |
| 6.3 | Resistance to chemicals | 8 |
| 6.3.1 | Degradation resistance | 8 |
| 6.3.2 | Permeation resistance | 8 |
| 6.3.3 | Resistance to limited contact with chemicals | 9 |
| 6.4 | Electrical properties | 9 |
| 6.4.1 | General | 9 |
| 6.4.2 | Electrically insulating footwear | 9 |
| 6.4.3 | Antistatic footwear | 9 |
| 6.5 | Water resistance | 9 |
| 6.6 | Outsole | 9 |
| 6.6.1 | Cleat design | 9 |
| 6.6.2 | Cleat height | 9 |
| 6.6.3 | Cleat height in the waist area | 10 |
| 6.6.4 | Heel breast | 10 |
| 6.7 | Zipper (slide fastener) | 11 |
| 6.7.1 | Zipper construction | 11 |
| 6.7.2 | Zipper puller attachment strength | 11 |
| 6.7.3 | Zipper lateral strength | 11 |
| 7 | Test methods | 11 |
| 7.1 | Insulation against heat | 11 |
| 7.2 | Radiant heat | 11 |
| 7.3 | Flame resistance test | 11 |
| 7.3.1 | Conditioning and sampling | 11 |
| 7.3.2 | Procedure | 11 |

| | | |
|--|--|----|
| 7.4 | Zipper | 12 |
| 7.4.1 | Puller attachment strength | 12 |
| 7.4.2 | Lateral strength | 13 |
| 8 | Marking | 13 |
| 9 | Information to be supplied | 15 |
| 9.1 | General | 15 |
| 9.2 | Antistatic footwear | 15 |
| 9.3 | Electrically insulating footwear | 16 |
| 9.4 | Insocks | 17 |
| 9.5 | Information regarding perforation resistant insert | 17 |
| Annex A (normative) Assessment of the footwear by the laboratory during testing for resistance to heat and flame | | 18 |
| Annex B (informative) Assessment of the footwear by the wearer | | 20 |
| Annex C (Normative) Assessment of the performance of the footwear | | 22 |
| Annex D (informative) Slip resistance | | 23 |
| Bibliography | | 26 |