

## EN 469 PROTECTIVE CLOTHING FOR FIREFIGHTERS TEST METHODS AND REQUIREMENTS

Check of the design	EN 469 part 4
Check of the ergonomic features	EN ISO 13688
Check of size designation	EN ISO 13688
Pretreatment: Washing and drying	EN ISO 15797 (industrial) or EN ISO 6330 (domestic)
Dimensional change due to cleaning	ISO 5077 after 5 cycles
Flame spread – surface ignition	ISO 15025 Method A in new state and after pretreatments
Flame spread – seams – surface ignition	ISO 15025 Method A in new state and after pretreatments
Flame spread – accessories – surface ignition	ISO 15025 Method A in new state and after pretreatments
Flame spread – all materials used for visibility – surface ignition	ISO 15025 Method A in new state and after pretreatments
Heat resistance 180°C (textiles and accessories)	ISO 17493 after pretreatments
Tensile strength (woven fabric)	EN ISO 13934-1 in warp and weft direction after pretreatments
Tensile strength (coated fabric)	EN ISO 1421 Method 1 in warp and weft direction after pretreatments
Seam strength	EN ISO 13935-2 after pretreatments
Tear strength (woven fabric)	ISO 13937-2 in warp and weft direction after pretreatments



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Tear strength (coated fabric)	EN ISO 4674-1 Method B in warp and weft direction after pretreatments
Resistance to penetration by liquid chemicals	EN ISO 6530 in new state and after pretreatments
Resistance to water penetration (Code Y1 or Y2)	EN 20811 after pretreatments
Calculation of visibility	EN 469 part 6.14.1 EN ISO 20471 part 4.1
Heat transfer – flame (Code X1 or X2)	EN 367 in new state and after pretreatments
Heat transfer – radiation (Code X1 or X2)	EN ISO 6942 in new state and after pretreatments
Residual tensile strength of material when exposed to radiant heat	EN ISO 6942 + EN ISO 13934-1 in new state and after pretreatments
Surface wetting	EN ISO 4920 in new state and after pretreatments
Water vapour resistance (Code Z1 or Z2)	EN 31092 after pretreatments
Colour performance requirements for background and combined performance material	EN ISO 20471 part 5.1 in new state and after pretreatments