



# TRI-CERT HELLFIRE™ LEATHER

STRUCTURAL



TECHNICAL RESCUE INCIDENTS



WILDLAND FIRE FIGHTING



Be prepared for any call with the fire fighting boot that's three boots in one. This Triple Certified fire fighting boot, part of Thorogood's proven HELLFIRE™ Series, is ready for action in the most challenging rescue circumstances. It combines fire fighting protection, extrication/technical rescue protection, and flexible modern shoe technology to make sure you're comfortably ready for anything.

- ▲ Black Boulder Full Grain Leather upper is waterproof, flame and cut resisting.
- ▲ Flexible Goodyear storm welt construction provides proven long term durability.
- ▲ Multi-layered sole delivers comfortable cushioning and fire fighting protection in a lightweight design.
  - Comfort Cushioned Polyurethane removable footbed
  - Flexible Rubber midsole
  - Flexible L-Protection™ puncture resisting insole material
  - Steel triple ladder shank for enhanced stability and protection
  - Thorogood's exclusive Vibram® FIRE sole is slip resisting, non-marking, and puncture resisting.
  - Patent Pending **I-MET**® Metatarsal Protection
- ▲ Steel toe protection with scuff-resisting black Vibram® rubber toe protection
- ▲ Optional lace-in zipper offers quick foot entry and exit
  - Comfort weave / Sympatex® barrier is waterproof and blood borne pathogen compliant.
  - Meets requirements for NFPA 1971 Structural fire fighting as well as NFPA 1951 for T.R.I. and NFPA 1977 for Wildland fire fighting, current editions.
  - Meets CAN/CSA-Z195 Electric Shock Resistance for protection against electrical hazards.



804-6391M  
504-6391M

ISO 9001 CERTIFIED



WEINBRENNER SHOE COMPANY

1-800-826-0002

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	LEATHER 504/804-6391M	LEATHER 504/804-6373	LEATHER 504/804-6371	LEATHER 504/804-6369	LEATHER 504/804-8373	LEATHER 504/804-6378
<b>STANDARD – NFPA 1971-2007 (STRUCTURAL FIREFIGHTING)</b>						
<b>Corrosion Resistance Test</b> steel toe, steel plate, ladder shank	pass	pass	pass	pass	pass	pass
<b>Flame Resistance Test 4</b> after flame, melting, dripping, burn-through	pass	pass	pass	pass	pass	pass
<b>Heat Resistance Test</b> melting/dripping, separation, ignition, leakage	pass	pass	pass	pass	pass	pass
<b>Conductive Heat Resistance Test 1</b> pain time, 6 seconds min.	>30 sec.	>30 sec.	>30 sec.	>30 sec.	>30 sec.	>30 sec.
<b>Conductive Heat Resistance Test 1</b> second degree burn time, 10 seconds min.	>30 sec.	>30 sec.	>30 sec.	>30 sec.	>30 sec.	>30 sec.
<b>Conductive Heat Resistance Test 2</b> insole temperature at 30 seconds, 44°C max	22.5°C	22.5°C	22.5°C	25.5°C	22.5°C	22.5°C
<b>Radiant Heat Resistance Test</b> temperature at 1 minute, 44°C max. – Dry	33.6°C	33.6°C	33.6°C	31.5°C	33.6°C	33.6°C
<b>Radiant Heat Resistance Test</b> temperature at 1 minute, 44°C max. – Wet	28.5°C	28.5°C	28.5°C	25.5°C	28.5°C	28.5°C
<b>Steel Toe Impact</b> clearance after test – 0.5" min.	>.64"	0.59"	0.65"	0.93"	>.64"	>.64"
<b>Steel Toe Compression</b> force applied until failure – 2500 lbf min.	>.67"	0.68"	0.72"	0.95"	>.67"	>.67"
<b>Metatarsel Protection Test</b> 25 mm min.	30 mm	–	–	–	–	29 mm
<b>Puncture Resistance Test 1</b> upper sidewall puncture, 13.2 lbf min.	41.9	39	39	31	41.9	41.9
<b>Puncture Resistance Test 2</b> sole and heel penetration	431 lbf	325 lbf	325 lbf	471 lbf	431 lbf	431 lbf
<b>Cut Resistance Test</b> upper material cut, 25 mm min.	>50 mm	>36.4 mm	>36.4 mm	>49 mm	>50 mm	>50 mm
<b>Abrasion Resistance</b> NBS Abrasion Index – 100 min.	665	665	665	183	665	665
<b>Liquid Penetration Test - 5 Chemicals</b> AFFF (Aqueous Film-Forming Foam); Battery Acid; Fire-resistant Hydraulic Fluid (Phosphate Ester Base); Gasoline Surrogate Blend (Toluene and Iso-octane); Swimming Pool Chlorinating Chemical (minimum 65% free chlorine)	pass	pass	pass	pass	pass	pass
<b>Viral Penetration Test</b> blood borne pathogens	pass	pass	pass	pass	pass	pass
<b>Electrical Insulation Test</b> current leakage – 5 mA max.	0.2 mA	0.2 mA	0.2 mA	0.4 mA	0.2 mA	0.2 mA
<b>Ladder Shank Bend Resistance Test</b> deflection at 400 lb., 0.25" max.	0.12"	0.12"	0.12"	0.092"	0.12"	0.12"
<b>Slip Resistance – Sole - Dry</b> Static Coefficient of Friction – 0.75 min.	0.82	0.82	0.82	0.92	0.82	0.82
<b>Slip Resistance – Heel - Dry</b> Static Coefficient of Friction – 0.75 min.	0.87	0.87	0.87	0.79	0.87	0.87
<b>Label Durability and Legibility</b> heat, washing, and abrasion	pass	pass	pass	pass	pass	pass
<b>Flex Cracking Resistance Test</b>	pass	pass	pass	pass	pass	pass
<b>STANDARD – NFPA 1992-2005 (LIQUID SPLASH PROTECTION FOR HAZ-MAT)</b>						

NOTE: Other testing requirements for this standard are included in test results above, due to overlapping requirements between the standards.



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