

# FOOTWEAR FABRIC

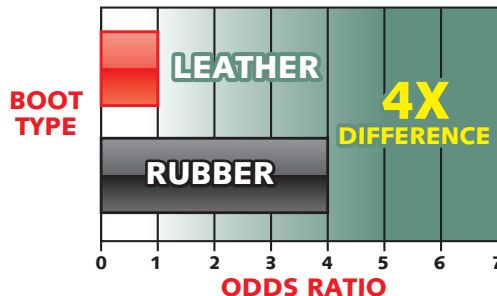
Stay on Your Feet with Leather Boots!



Your boots play an important role in your protection and safety, and for years, there has been thought that leather boots provided better footing. Now, thanks to a joint research study by Auburn University and the University of Mississippi<sup>1</sup> there is support for this thinking.

In the Study, professional firefighters participated in fire simulation activities wearing rubber boots and then leather boots, separated by a rest period. The results of the Study indicated that the firefighters were **four times** more likely to have a hazardous slip when wearing rubber boots than when wearing leather boots<sup>2</sup>.

## Probability of Hazardous Slip



The Study shows that leather boots keep you on your feet!

Visit [www.goreprotectivefabrics.com/Structural-Fire-Fighting-Footwear](http://www.goreprotectivefabrics.com/Structural-Fire-Fighting-Footwear) for more information about this study.



<sup>1</sup>Chip Wade, Ph.D., CPE (2013) "Slip Outcomes in Firefighters: A Comparison of Rubber and Leather Boots" working paper, Auburn University, Department of Industrial and Systems Engineering, [cwade1@auburn.edu](mailto:cwade1@auburn.edu).

<sup>2</sup>Mean estimate is based on a sample size of 60 subjects where the 95% confidence interval on the slip/fall odds is between 1.32 and 13.39 times more likely in rubber than in leather.

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## The Economics of Leather Boots



In cases where departments may prefer leather boots for improved comfort and agility, budget constraints may result in settling for rubber boots with an initial cost between \$100 and \$200 less than leather. However, the cost of potential injury may not be considered in these decisions.

Based on a recent NFPA report of line-of-duty injuries<sup>3</sup>, more than 14,700 firefighters (out of 1.1 million<sup>4</sup>) were injured because of falls, slips, or jumps in 2011, and the National Safety Council<sup>5</sup> has determined that the average cost for a slip/fall injury was \$41,393.

Bringing these figures closer to home...in a department with 1,000 firefighters\*, the above reports' data would suggest that approximately 12 members would have sustained a slip/fall injury in 2011, for a total cost of almost \$500,000. Additionally, based on the data from the universities' research study<sup>6</sup>, wearing leather boots instead of rubber can potentially lower a fire department's rate of slip/fall injury by 4 times – translating to saving your department \$375,000, or \$375 per firefighter.

***Data suggests that spending \$100 to \$200 for premium leather boots can increase traction, reduce the number of injuries, and potentially save \$375 in medical costs – not to mention the lost time incurred and hardship for fellow firefighters!***

<sup>3</sup>Karter, Jr., Michael J. and Joseph L. Molis, "U. S. Firefighter Injuries – 2011," National Fire Protection Association, October 2012.

<sup>4</sup>U.S. Fire Department Profile 2011, <http://www.nfpa.org/itemDetail.asp?categoryID=2486&itemID=55953>

<sup>5</sup>"INJURY FACTS@ 2013 Edition," National Safety Council@

<sup>6</sup>Ibid. 1

\*Individual department size and statistics may vary.

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