Over the Sock Footwear Guide...

Tingley offers over the sock footwear in either Neoprene or PVC.

Our line of dipped, hand-layered neoprene is one of the most comfortable fitting boots available. The snugleg design is a much snugger fit than a standard knee boot and is excellent where walking, crouching, and kneeling are required.

We offer four distinct formulations in our PVC Boot line. Each of the products has been designed to meet different industrial needs. Most of our boots use a different compound for the upper and another for the outsole. This allows for better flexibility in the shaft of the boot and longer wearing materials in the outsoles. Product performance is enhanced with high molecular weight PVC resins, specialty additives, and plasticizers. The most common cause of failures in PVC boots is due to the extraction of plasticizers when PVC comes in contact with fats, oils, and many chemicals. Once the plasticizers are pulled out of the boot, the PVC becomes hard and is prone to cracks. The addition of specialty additives slows down this extraction process so that the boot will generally last longer.

Material Selection: Before choosing a material where contact with a given chemical may occur, the user should perform their own tests. If highly toxic chemicals are present, special care must be taken into consideration when choosing the correct protective product. This care should include daily inspections to ensure that normal wear and tear have not reduced the integrity of the product. Depending on the toxicity level of the chemical, products should be disposed of if intimate contact with the chemical has occurred.

NEOPRENE: Is a synthetic rubber that is resistant to a broad range of animal fats and blood, oils, certain acids, alcohols, alkalies, caustics, and certain solvents. Our Neoprene material comes in a brick red color so it can be easily recognized in its application, as Neoprene. Available in Styles MB920B, MB921B, MB922B, MB924B, MB926B

REPLACEMENT INSOLES

Polyurethane Contour Insole:

Best Comfort. Constructed of three layers for long wear and comfort. The top layer is made of polypropylene for moisture absorption. The middle is polyurethane with open cell construction for breathability and support. The bottom layer is made of polyethylene, which conforms to the shape of the foot for secure placement. Available in Style CI124

POLYVINYL CHLORIDE (PVC): Is a synthetic thermoplastic polymer that provides good protection against animal fats, many acids, alcohols, alkalies, bases, oils, and petroleum hydrocarbons. PVC is not recommended for use in ketones, aldehydes. and many solvents.

HazProof: Utilizes very special formulations to enhance permeation resistance and flame resistance to meet the rigorous demands of hazardous waste cleanup. In addition, the HazProof formula will work well in animal fats, many acids, alkalies, bases, oils, and petroleum hydrocarbons.
Available in Style 82330

Premier: Is made with a unique blend of high molecular weight PVC resins, and a high concentration of specialty additives and plasticizers to enhance the boot's chemical resistance. The Premier formula will withstand higher exposures of fats, certain acids, hydrocarbons, caustics, and other chemicals than will our Better Grade and General Purpose/Economy formulas.
Available in Styles 93145, 93245, 94245

Better Grade: Is made from a blend of high quality PVC resins and specialty plasticizers. Our Better Grade formulas offer good balance of performance and price for many applications where some exposure to fats, certain acids, hydrocarbons, caustics, and other chemicals are present. Available in Styles 51144, 51244

Economy: Is made from basic PVC resins and includes some recycled PVC. Our Economy line, as the name implies, is a good choice for less demanding general purpose applications. The formula will not provide the same resistance to most chemicals that our other PVC formulations provide. Available in Styles 31151, 31251

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OUTSOLE DESIGNS:

Cleated is a good choice when varied conditions are encountered and for use outdoors. The outsole has larger openings between the cleats, which helps to dig through mud as well as spitting out debris. The cleated outsole has less surface area than other soles, which may reduce slip resistance in indoor applications as well as having less volume of material in the cleats for wear. Available on Styles 51144, 51244, 31151, 31251

Chevron was designed by Uniroyal. This sole design was the standard in many food processing applications. It has more edges in its design to enhance slip resistance when used in indoor applications where there is a limited amount of debris. Available on Styles MB920B, MB921B, MB922B, MB926B

Chevron-Plus takes the traditional Chevron sole to a higher level of performance. Designed to be more self-cleaning by maximizing the number of edges and surface area for improved slip resistance. More cleat material than the Cleated and Chevron for longer wear. Excellent on wet-contaminated surfaces. Available on Styles 93145, 93245

Safety-Loc is designed for use in environments with slippery wet-clean surfaces. It maximizes the number of edges and surface area for slip resistance. Not recommended for use in areas that have debris on surfaces which may get caught in the small spaces between the cleats of this design. Available on Styles 94245, MB924B

Sure Grip has excellent abrasion and slip resistance. Open cleats help spit out debris. Available on Styles 82330, MB816B

INJECTION MOLDED KNEE BOOT FEATURES

1. Seamless construction provides 100% waterproof protection.

2. Graduated boot height by size for better fit.

3. Soft, lighter weight material injected in upper for more flexibility and comfort.

4. Extra material in heel and toe for longer wear.

5. Ankle patch for extra protection.

6. Heavy duty heel kick for easy off. **7.** Beveled heel reduces back strain.

8. More abrasion resistant material injected in outsole for longer wear.

9. Finger tabs provide better grip when pulling boot on.

10. Wider shaft opening allows pant leg to easily tuck in boots.

11. Cut-off band for adjustable fit. **12.** ASTM compliance molded in boot.

13. Our famous rocker last design cradles the foot and walks with you for all day comfort.

14. Flex lines in vamp for more comfort when walking.

15. Steel toe styles meet ASTM F 2413 M/I/75/C/75 for impact and compression.

16. Size marked on front of boot for easy identification off the shelf.

17. Low toe spring for more outsole surface contact for better slip resistance. Also reduces back stress.

18. Specialty outsole designs available for specific applications.

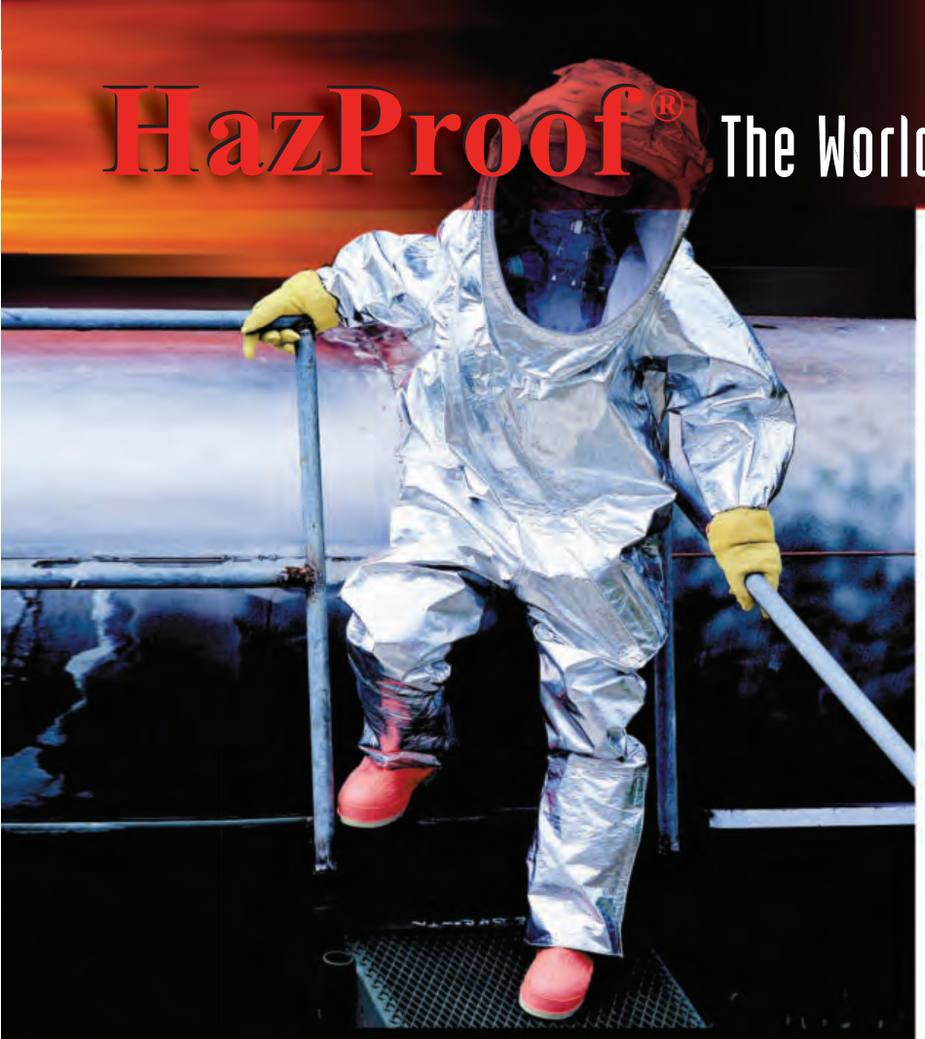
19. Removable, high quality flat or contour insoles.

20. Molded arch support for added comfort.

21. Men's sizing clearly marked along with women's conversion size for added convenience.

22. Reinforced molded shank provides added support for arch.

HazProof® The World's Most Advanced Hazmat Boot



The best fitting, most comfortable Hazmat Boot available!

HazProof® Certified To NFPA 1991 For Chemical And Hazmat Cleanup, Emergency Response, And Domestic Preparedness

Made of special polymer material, this comfortable boot meets the protective footwear chemical permeation requirements of NFPA 1991 Standard on Vapor-Protective Ensembles for Hazardous Materials Emergencies. The HazProof boot has also been tested to Military Standard 282 and will provide protection against certain chemical warfare blister and nerve agents!

- **Injection molded seamless construction for 100% liquid proof protection.**
- **Larger foot area is engineered to accommodate the extra bulk of an encapsulated suit, for comfortable fit.**
- **Smooth exterior surface for easy decontamination.**
- **Stretch fastener closure system allows for easy on and off while wearing gloves.**
- **Meets ASTM F 2413 M/I/75/C/75 EH, for Steel Toe Impact and Compression, and Electrical Hazard Protection.****
- **Steel mid-sole meets and exceeds ASTM F 2413 PR.**
- **Steel shank provides firm arch support.**
- **Blown closed cell EVA mid-sole for all day cushion comfort.**
- **Sure grip cleated outsole has excellent abrasion and slip resistance.**
- **Bright orange color for high visibility.**

Sure Grip Outsole: Excellent abrasion and slip resistance.

Test Method Results

Our HazProof Boot has surpassed the following Test Methods:

Permeation Resistance – **ASTM F 739** and **ASTM F 1001** – 21 Chemicals
Permeation Resistance – **MIL-STD-282**
Flame Resistant – **ASTM F 1358**
Puncture Propagation Upper – **ASTM F 1342**
Exceeds Protection Minimum Upper (Height)
Electrical Hazard – **ASTM F 2413 EH**
Puncture Resistance Sole & Heel – **ASTM F 2413 PR**
Abrasion Resistance Sole & Heel – **ASTM D 1630**
Toe Impact Resistance – **ASTM F 2413 M/I/75**
Toe Compression Resistance – **ASTM F 2413 M/C/75**
Slip Resistance – **ASTM F 489**
Cut Resistance Upper – **ASTM F 1790**
Ladder Shank Bending Resistance – **NFPA 1991**

****Boot shall withstand 18,000 volts at 60 HZ for 1 minute with no current flow or leakage current in excess of 1.0 milliamperes under dry conditions tested as per lab conditions in Test Method F 2412.**

Electrical Hazard soles and heels are intended to reduce the hazards due to accidental contact with live electrical circuits, electrically energized conductors, parts, or apparatus. Electric Hazard soles and heels are not intended for wear in those work environments where volatile chemicals or explosives may be present, where conductive footwear is required.

Warning: *Electric Hazard features of the soles and heels, will deteriorate in wet environments and when worn with excessive wear on the soles and heels.*

Ideal Applications: Chemical and Hazmat Cleanup.

Chemical Resistance: Hazardous Waste.

HAZPROOF BOOT SURE GRIP OUTSOLE		
82330	Orange Upper – Cream Outsole – Ht. 11" – Steel Toe	6 - 13*
RF823	Replacement Stretch Fasteners - 6 pc/bag	

*Size 13 oversized foot bed design will accommodate foot sizes up to 16.

HazProof® is a registered trademark of Tingley Rubber Corp.

NFPA 1991 CERTIFIED!