WE'VE GOT YOU COVERED:

HOW DISPOSABLE SHOE COVERS

PROVIDE AN EXTRA LAYER OF SAFETY FOR YOUR WORKPLACE

TINGLEY

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There are fewer things more emblematic of workplace safety than personal protective equipment (PPE). From hard hats to safety glasses to work gloves to (especially amid the COVID-19 pandemic) facemasks and face shields, PPE is the last line of defense against potential hazards on the job. One particular form of PPE, however, is too often underappreciated: foot protection.

The great irony in this is that our feet take us everywhere—we'd be (almost quite literally) lost without them. However, this can be something of a double-edged sword when it comes to workplace safety, especially in our current environment when viral contamination is an ongoing concern for many diverse facilities. Your shoes track in small amounts of material from everywhere you've been throughout the day, and they can also take contaminants home with you at the end of the day.

So, how can employees best ensure that they are protecting their feet from workplace contaminants while at the same time also minimizing the risk that they are tracking contaminants *into* their facilities? If this is a concern within your facility and among your employees, it must be addressed by your environment, health, and safety (EHS) program—and shoe covers could be the perfect form of PPE to meet your needs.

What Does OSHA Have to Say About Protective Footwear?

While OSHA does not have a standard specific to boot and shoe covers, its general industry requirements for protective footwear, found in Subpart I, Personal Protective Equipment, outline the conditions under which protective footwear is a regulatory requirement. A careful hazard assessment will tell you whether those conditions—or other hazardous conditions not covered by OSHA—apply to your workplace.

Protective footwear is subject to the general requirements applicable to all PPE in 29 CFR 1910.132, and to the specific foot protection requirements found in 29 CFR 1910.136. OSHA general requirements for personal protective equipment (PPE) and its specific requirements for protective footwear include:

- *PPE must be provided wherever workers are exposed to process or environmental hazards that could cause bodily injury or impairment. In the case of protective footwear, employers must require its use whenever workers may be injured by:*
    - *Falling or rolling objects*
    - *Objects that could pierce the sole of the foot*
    - *Static discharge or electric shock hazards*
- *Equipment must be provided, used, and maintained in a sanitary and reliable condition. When employees provide their own equipment, as is often the case with protective footwear, the employer is responsible for ensuring that the equipment is adequate and properly maintained.*
- *PPE must be selected based on the hazards of the workplace. Employers are required to perform a written hazard assessment and keep a record of it.*
- *PPE must properly fit the worker.*
- *Workers must be trained in the proper use and care of their PPE.*
- *Protective footwear must comply with the ASTM F2413-05 standard that is incorporated by reference in the OSHA foot protection standard. The ASTM standard was most recently updated in 2017.*

While these are some of the basics of foot protection compliance, your individual organization's needs and challenges require a unique approach, and your health and safety professionals should conduct hazard analyses in order to ensure PPE programs are tailor-made to protect employee health and safety. Always remember that when it comes to workplace safety, excellence is all about going beyond compliance!

WHAT ARE SHOE COVERS?

Shoe covers are an additional layer of PPE worn over workers' footwear, whether it be their everyday shoes or protective footwear employed against workplace hazards (e.g., steel toed or heat- or cut-resistant boots). This additional layer serves to prevent cross-contamination between different areas of a facility as well as prevent contaminants from being transferred from the floor onto shoes (and vice versa). They are often ambidextrous (i.e., can be worn on either foot) and made of slip-resistant materials.

For example, Boot Saver® shoe covers from Tingley offer the following features:

- Four colors (Black, Red, Yellow, and Blue) that support Food Safety Modernization Act (FSMA), Hazard Analysis and Critical Control Point (HACCP), Good Manufacturing Practice (GMP), and other safety and contamination prevention procedures.
- 100% liquid proof protection for boots and shoes.
- High quality, natural rubber latex that stretches easily over boots while remaining resistant to snags, tears, and abrasion.
- A textured outsole that provides a good grip on both wet and dry surfaces.
- Powder-free finishes that eliminate concerns about powder contamination on clothing, footwear, foods, and food-contact surfaces.
- A variety of sizes to ensure a good fit and disposability to ensure contaminants don't follow workers home.

Boot Savers also provide chemical resistance, including resistance to water-soluble compounds, low concentration acids and alkalis, alcohols, most natural fats and greases, diluted bleach, and mild to moderate strength detergents and cleaners.

The ideal environments, industries, users, and other applications of this unique form of PPE include:

- Food processing facilities;
- Hospitals and other health care facilities;
- Paint spray booths or other painting or sanding activities;
- Maintenance and service technicians;
- Home repair contractors;
- Plant visitors and/or inspectors;
- Delivery personnel; *and*
- Any other general industry applications where contamination prevention is a priority.

That last point takes on special meaning in the environment currently faced by businesses—during the COVID-19 pandemic, contamination prevention should be a priority *everywhere*.

A NEW AND TIMELY FOCUS ON CONTAMINATION

Contamination has always been a concern in industries such as food processing. However, all industries are now grappling with the effects of COVID-19, the respiratory illness caused by the SARS-CoV-2 virus. Employers large and small naturally want to minimize the risk of workers being exposed to the virus. Handwashing, filtering facemasks, and social distancing are some of the primary preventive measures, but relatively little attention is paid to the potential role of shoes as virus carriers.

However, a small study conducted at a hospital in Wuhan, China, suggests that the SARS-CoV-2 virus can be spread on the soles of shoes. The study, published in the Emerging Infectious Diseases® journal[1], made this determination based on swab samples taken from various areas of the hospital as well as the shoes of hospital staff.

The study states:

> "…as medical staff walk around the ward, the virus can be tracked all over the floor, as indicated by the 100% rate of positivity from the floor in the pharmacy, where there were no patients. Furthermore, half of the samples from the soles of the ICU medical staff shoes tested positive. Therefore, the soles of medical staff shoes might function as carriers…. We highly recommend that persons disinfect shoe soles before walking out of wards containing COVID-19 patients."

While shoe covers do not *disinfect* shoe soles, they can prevent viruses such as SARS-CoV-2 from being transferred from a shoe sole to the floor—and likewise prevent any such contaminants on the floor from transferring onto a shoe sole. Color-coordinating shoe covers to align different colors with different areas of a facility can provide a visual reminder to change covers when moving between these areas, further managing the risk of any cross-contamination.

Of course, you shouldn't use just any shoe covers. You must objectively ensure that this PPE is truly giving you the protection that you need. In testing conducted by Vartest Laboratories, an independent quality assurance and compliance testing company, Tingley's latex Boot Savers passed a protective clothing test for resistance to viral penetration and bloodborne pathogens.

The addition of shoe covers to your PPE stockpile can give employees some peace of mind knowing that they are literally protected from head to toe.

DO YOU HAVE YOUR EMPLOYEES' HEALTH AND SAFETY COVERED?

While any foot protection program must be tailored to the unique needs, hazards, and challenges facing your organization or industry, the COVID-19 pandemic has added an extra set of complications that many employers have never faced before. These new hazards must be carefully considered and addressed to minimize the risks to employees—and PPE, including shoe covers, is a primary tool for maintaining health and safety throughout a facility. By using disposable latex shoe covers such as Tingley Boot Savers, you can ensure that your business is taking every precaution to protect employees' wellbeing in these uncertain times, and that their health and safety is covered throughout the workday, wherever they may go.

ABOUT TINGLEY

Tingley has been protecting generations since its founding by Charles O. Tingley in 1896. From its humble beginnings as a bicycle tire plug company, this U.S.-based, fifth-generation family business has innovated and grown to offer a full line of protective, liquid-proof footwear and clothing. From the first rubber overshoe and the first Hazmat boots to exterior-coated polyurethane protective clothing with sealed seams, Tingley has been and will continue to be a leader in innovation and protection.

ABOUT THE AUTHOR

This Insight Report was developed by Tingley in partnership with BLR's *EHS Daily Advisor* editorial team. BLR offers industry-leading, award-winning content prepared by regulatory experts and EHS thought leaders.

[1] *https://wwwnc.cdc.gov/eid/article/26/7/20-0885_article*

TINGLEY

Tingley offers a complete line of Protective Footwear and Clothing products. As a fifth generation family owned company, generations have trusted Tingley since 1896.