

# GLOVES

## User Information Guide

### Protective Gloves for Emergency Operations: Structural Fire Fighting (NFPA 1971) Proximity Fire Fighting (NFPA 1971) Liquid Splash Protection during Hazardous Materials Emergencies (NFPA 1992) Technical Rescue Incidents (NFPA 1951) Emergency Medical Operations (NFPA 1999)

ONLY THE END USER SHALL REMOVE THIS INFORMATION PRIOR  
TO USING THESE GLOVES

#### DANGER

YOU MAY DIE OR SUSTAIN SERIOUS INJURY IF YOU DO NOT HAVE THE SPECIAL TRAINING AND KNOWLEDGE TO CORRECTLY USE YOUR GLOVES AND/OR HAVE NOT READ THIS USER GUIDE. IF YOU WERE NOT GIVEN A COMPLETE GUIDE OR LOSE YOUR USER GUIDE, ALERT YOUR ORGANIZATION OR CONTACT HONEYWELL FOR A REPLACEMENT.

- DO NOT USE YOUR PROTECTIVE GLOVES IF YOU HAVE NOT READ AND UNDERSTOOD THIS GUIDE AND THE LABEL ON YOUR GLOVES, AND YOU HAVE NOT BEEN PROPERLY TRAINED AND SUPERVISED IN THEIR USE.
- THESE GLOVES AND ANY OTHER GLOVES WILL NOT PROTECT YOU FROM ALL HAZARDS UNDER ALL CONDITIONS.
- THESE GLOVES MUST BE WORN AS PART OF A COMPLETE PROTECTIVE ENSEMBLE; IT IS THE RESPONSIBILITY OF YOUR DEPARTMENT TO DETERMINE THE SUITABILITY OF THESE GLOVES FOR THEIR INTENDED USE AND WHEN THESE GLOVES MUST BE WORN TOGETHER WITH OTHER ENSEMBLE ELEMENTS AND ENSURE THAT THE SELECTED ENSEMBLE ELEMENTS WORK TOGETHER TO PROVIDE THE INTENDED PROTECTION.
- YOU MUST ENSURE THAT YOUR GLOVES PROPERLY FIT AND ARE PROPERLY WORN FOR EFFECTIVE PROTECTION.
- YOU MUST PROPERLY INSPECT, CARE FOR, AND MAINTAIN THESE GLOVES WITH THIS GUIDE IN ORDER FOR THE GLOVES TO PROVIDE EFFECTIVE PROTECTION.

# Honeywell

# User Information Guide – Protective Gloves for Emergency Operations

## Introduction

This guide addresses Honeywell glove styles for: Structural and Proximity firefighting (NFPA 1971); Rescue Utility, Rescue and Recovery and Technical Rescue Incidents (NFPA 1951); Liquid Splash-Protective Ensembles and Clothing for Hazardous Materials Emergencies (NFPA 1992); and Emergency Medical Operations (NFPA 1999). It is important to check the label on your gloves to determine the type of emergency operations and the applicable standards to which your gloves have been certified. Some glove styles are certified to multiple standards. Where there are differences related to selection, care, and maintenance of the two types of gloves, this information is highlighted.

Your protective gloves are intended to provide limited protection to your hands and wrists as part of a properly selected and configured protective ensemble during structural firefighting, proximity firefighting, technical rescue incidents, emergency medical operations, and related emergency response activities, as indicated on the glove label. While your protective gloves are designed to provide protection against a number of emergency operations hazards, your protective gloves will not protect you against all exposures and under all conditions, even when worn properly.

This user information guide provides information and instructions related to the selection, use, care, and maintenance of your protective gloves. However, this guide does not tell you when and under what circumstances you should wear your protective gloves. Rather, this guide tells you how to wear your protective gloves and provides an understanding of the limitations of your gloves and how these gloves may or may not protect you. Determining the suitability of your protective gloves for specific emergency operations rests with your department or employer, who has the legal responsibility to conduct a hazard assessment and decide if your protective gloves provide appropriate protection against identified hazards.

**While this guide provides you basic information to adequately care for and maintain your protective gloves, there are certain additional procedures – such as advanced inspection, advanced cleaning, decontamination, and retirement – that should be performed only by trained and qualified personnel. Information and instructions for these additional procedures are provided on our website. Go to [www.HoneywellFirstResponder.com](http://www.HoneywellFirstResponder.com)**

## Pre-use Information

**General Construction and Features** – Your protective gloves have been manufactured to comply with and are certified to one or more of the following standards:

NFPA 1971, *Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting*

NFPA 1951, *Standard on Protective Ensembles for Technical Rescue Incidents*

NFPA 1992, *Standard on Liquid Splash-Protective Ensembles and Clothing for Hazardous*

*Materials Emergencies*

NFPA 1999, *Standard on Protective Clothing for Emergency Medical Operations*

There are a variety of styles of Honeywell protective gloves. Most of these gloves are primarily constructed of three layers that include outer shell, moisture barrier, and thermal barrier or lining. Outer shells include different types of leather that are intended to provide the primary physical protection to the hand. Moisture barriers are intended to prevent physical penetration of certain liquids (water, blood/body fluids, and some fireground chemicals). Thermal barriers provide additional insulation to the hand from heat in combination with the outer shell and moisture barrier. Some glove styles may have additional interior layers for insulation, or other layers on the glove exterior for physical protection or reducing wicking. Gloves have either gauntlets, which are extensions of the glove body, or knit wristlets that are intended to protect the wrist area and lower forearm depending on their length. Wristlets have a leather pull tab on the palm side of the gloves. Proximity firefighting gloves share many of the same materials and features as structural firefighting gloves, except that the majority of the outer shell is replaced with an aluminized material that covers the back of the hands, back and sides of the fingers, entire thumb, and wrist area. Leather is used in the palm area of the gloves. The aluminized outer shell is intended to provide additional protection from exposure to high levels of radiant heat associated with proximity firefighting. Specific information about the materials and features of these glove styles is provided on the Honeywell website at [www.HoneywellFirstResponder.com](http://www.HoneywellFirstResponder.com).

**Safety Considerations and Limitations of Use** – It is critically important that you do not use these protective gloves until you have read and understood this entire guide and the labels provided on your protective gloves. In order to reduce – but not eliminate – your risks, do not wear these protective gloves unless:

- **You Understand Labels, This Guide, and Applicable Standards:** You have read, fully understood, and strictly follow this guide and all labels for these gloves; the NFPA standards listed on the glove certification labels; and applicable national, state/provincial, and local regulations pertinent to emergency operations.
- **Your Use Is in Accordance with Applicable Standards and Regulations:** Your use of these protective gloves is consistent with NFPA 1500, Standard on Fire Department Occupational Safety and Health Program, Title 29, Code of Federal Regulations Part 1910.132, General Requirements of Subpart I, “Personal Protective Equipment,” Title 29, Code of Federal Regulations, Part 1910.1030, “Protecting Health Care Workers from Occupational Exposure to Blood-Borne Pathogens,” and any specific regulations that pertain to your local area.
- **Need for Hazard/Risk Assessment:** Your department, organization, or employer has

conducted a hazard/risk assessment and determined that these gloves provide an acceptable level of protection for the particular emergency operations consistent with applicable national, state/provincial, and local regulations.

- **Your Gloves Fit Properly:** Your gloves must be appropriately sized for your hands to provide adequate hand protection, function, and comfort.
- **Limitations of Protection:** You have been trained and understand that not all gloves provide protection from all hazards, and you have been trained and understand how to select and properly use the appropriate gloves to meet the expected exposure.
- **Heat Stress:** Wearing your protective gloves together with other ensemble elements may increase your risk of heat stress which may cause heart attack, stroke, dehydration, or other health-related conditions. At the first sign of heat stress, immediately seek medical help.
- **Burn Injury:** Your protective gloves will not protect you from all burns and injuries. If your protective gloves are exposed to radiant, convective, or conductive heat, or come in contact with a hot environment or hot object, you may be burned underneath the protective gloves with no warning and no sign of damage to the protective gloves.
- **Heat Sensation:** Your protective gloves will lower your ability to feel heat. Do not be misled by the absence of heat or discomfort underneath your protective gloves. Even though you do not feel heat or discomfort, you can be burned or injured suddenly and without warning. If you feel heat or some slight discomfort or unusual sensation under your protective gloves, you may already have been burned or are about to be burned. Be constantly alert to the possibility of exposure to heat and other hazards.
- **Barrier Protection:** If equipped with a barrier material, your protective gloves will provide liquid integrity only in proportion to the gloves' length and the appropriate NFPA standards used in their certification. Water and other liquids may enter through the top of the glove and may result in exposure to liquid contaminants. Your protective gloves may not protect you from all chemical, radiological, or biological hazards which can cause death, injuries, diseases, and/or illnesses. The moisture barrier has not been evaluated for all chemicals that can be encountered during firefighting operations and information that the effects of chemical exposure on the moisture barrier are to be evaluated per the inspection procedures in NFPA 1851 and 1855. Furthermore, these gloves do not offer any protection from hazardous vapors or gases, liquefied gases, or cryogenic liquids. Ensure that you have a proper interface between your protective coat and these gloves.
- **Other Hazards:** Your protective gloves – wet or dry – may not protect you from electrical shock. Your protective gloves will not protect you from all physical hazards. Your protective gloves may be penetrated, cut, or torn by sharp surfaces or objects. Your gloves will not provide adequate grip for all tools or permit sufficient dexterity to perform all required hand functions. Do not use your protective gloves if they are contaminated, cut, punctured, worn, abraded, or altered from their original condition.

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- **Need for Complete Ensemble:** These gloves are effective only when properly worn, accounting for a proper interface with your garment, and are part of a complete ensemble that includes appropriate elements for your overall protection and is consistent with your organization/department's hazard and risk assessment.
- **Proper Care and Maintenance:** These gloves must be properly inspected, maintained, and cared for by your department, organization, or employer consistent with these instructions and applicable national, state/provincial, and local regulations, and are free of soiling, contamination, damage, and any alteration that would compromise the protection they provide in their original condition. Damage or contamination of these gloves may warrant their disposal.
- **Warranty:** These gloves are NOT warranted to be fit for a particular purpose. Read carefully the "Warranty Information" at the end of this guide. If labels in the gloves are missing or become unreadable, contact Honeywell for instructions for how to obtain a copy of the label information.

**Marking Recommendations** – Do not attempt to alter or modify your gloves. For identification purposes, you may mark your protective gloves on the interior using an indelible marker, if permitted by your department or organization. Do not write over or obscure information on the product label.

**Testing and Assessment of Performance** – Your protective gloves have been evaluated for a number of performance properties that are based on the respective standard(s) for their certification. These properties include, but are not limited to, thermal insulation, flame resistance, heat and thermal shrinkage resistance, cut and puncture resistance, liquid chemical and viral penetration resistance, overall liquid integrity, liner pull-out resistance, and various types of hand function. None of these performance properties can be evaluated in the field, so if you have questions, check with your department or organization, which in turn can contact Honeywell.

## Preparation for Use

**Sizing and Adjustment** – All Honeywell protective gloves are offered in multiple sizes that include the minimum number of sizes required by each standard. Some glove sizes range from extra extra small (XXS) to extra extra large (XXL) and may include a triple extra large (3XL). NFPA 1971 also uses glove sizing based the length of the index finger (in mm) and the width of the hand (designated as N - normal, W - wide, or XW - extra-wide). Some styles of gloves are also available in "cadet" sizes in which the fingers have a shorter length. Lastly, there are some styles that are made available in a "unique" sizing in which the gloves have shorter fingers and thumb but an extended body, or "special" sizing with shorter fingers and a swing thumb. None of the glove styles provided by Honeywell are adjustable. It is important that you select the appropriate

size of gloves. Gloves that are too tight will hinder some types of hand movement and reduce the layer of air between your hands and gloves that contributes to thermal insulation protection of your hands. Gloves that are too loose will also negatively affect your hand function, particularly dexterity and tactility. Choose a comfortable size that gives you the best dexterity, grip, and tactility and that does not result in premature hand fatigue. Follow the donning instructions provided in the next section to ensure you are correctly wearing your protective gloves.

**Recommended Storage Practices** – Store your gloves only when they are clean, dry, and free of contamination. Storing wet gloves will promote growth of mildew, fungus, bacteria, or other harmful substances with the potential to cause skin irritation, rashes, and diseases and/or illnesses. If kept wet, many glove leathers will become increasingly stiff and make gloves hard to use. Wet conditions can also lead to deterioration of some glove materials. Keep gloves away from potential contaminants such as oils, greases, or other chemical substances. Store your gloves in a clean, dry, ventilated area away from direct sunlight and away from tools or other sharp objects. Do not store your gloves with your personal belongings or in a personal living area. Do not store your gloves in a pocket of your protective coat or pants as this may lead to damage and contamination. Based on historical information, your protective gloves have a storage life of 5 years (without use), if properly stored.

## Inspection Details and Frequency

**Routine Inspections** – Inspect your protective gloves prior to their first use and following every use. Prior to using the gloves for the first time, ensure that the gloves do not have any construction flaws and were not damaged when being put into service. Following every use, inspect your protective gloves for:

- soiling
  - contamination
  - physical damage such as rips, tears, punctures, and cuts
  - thermal damage such as charring, burn holes, melting, and discoloration of any layer
  - inversion of the liner (the liner has turned inside out making it difficult to completely insert your hand, or partly/wholly comes out when removing your hands)
  - loss of flexibility
  - loss of elasticity and shape of the wristlet
- Also inspect the seams of your protective gloves to ensure that there are no broken or missing stitches. For proximity protective gloves, carefully check the condition of the aluminized shell for cracks, flaking, or abrasion that has diminished the reflective properties of the materials. If these conditions exist, alert the supervisor of your department or organization and request a determination on the continued serviceability of your protective gloves.
- Advanced Inspections** – Your protective gloves must be subjected to a more thorough

inspection at least every 12 months, after every advanced cleaning, or whenever there is a concern about their condition for continued service. This inspection must be carried out by an individual within your department or organization who has been trained in advanced inspections or by a qualified and accepted independent service provider.

## Wearing Instructions

**Donning** – To properly put on your gloves:

- Put your gloves on after you have donned your protective coat.
- If your gloves have a wristlet, use the leather pull tab on the glove when donning to reduce the stress of the wristlet-to-glove seam. The protective wristlet on the glove must overlap the wristlet on the turnout sleeve so that none of your skin is exposed when you wear the gloves together with your garment.
- Leather gauntlet glove styles must be worn with a thumbhole wristlet or other means on the protective garment sleeve to maintain the area of inter- face protection in your wrist area where gloves and garment sleeves overlap.

**Adjustment for Fit and Interface Issues** – Your protective gloves must fit properly and be worn in such a way that the interface area between the garment and gloves always protects your wrists and lower forearms. This interface area must remain protected during all of your anticipated movements, including when you reach forward or raise your arms. If your interface area does not remain protected during your movements, alert your supervisor to determine if you have been provided the correct garment and gloves.

**Doffing** – If your protective gloves are not contaminated:

- Use care when remove your gloves, as increased friction may occur from sweating or water entering the glove from the opening.
- Pull each finger and thumb separately with the opposite hand and slide your hand out of the glove.
- Do not peel off your gloves using the wristlet or gauntlet cuff.
- Inspect your gloves as indicated in the instructions above.

If your protective gloves have become contaminated with blood, body fluids, chemicals, or other hazardous substances, use extreme caution in re- moving your gloves and do not contact the surface of your gloves with your bare hands. Seek assistance in removing your gloves and other parts of your ensemble to minimize your exposure to any contaminants. Any damage or change in condition must be corrected before you reuse your gloves.

## Care and Maintenance Instructions

**Importance of Clean and Maintained Gloves** – It is important that you keep your protective gloves Clean, free of contamination, and properly maintained at all times. Protective gloves that

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are dirty or contaminated pose significant hazards. The wearing of soiled or contaminated clothing can cause acute or long term health hazards. Many contaminants can be absorbed by the skin and some are carcinogenic. In addition, many types of contaminants are flammable. Dulled or abraded aluminized shell material in proximity firefighting gloves reflects heat less effectively and provides lower levels of protection.

The leather used in gloves contains a variety of oils and chemicals that provide the gloves desirable properties for firefighting such as heat and flame resistance, softness, and some water repellency. Improper care may cause those oils or chemicals to dissipate, leaving the gloves stiff and useless. Improper care may destroy the thread that holds the inner liner and liquid barrier to the leather shell, causing the liner to pull out.

Refer to NFPA 1851, *Standard on Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting* for additional guidance on the care and maintenance of structural or proximity firefighting protective gloves. However, the instructions provided by Honeywell First Responder Products take precedence over any requirements specified in NFPA 1851 and NFPA 1855. Other standards are being developed to cover protective glove selection, care, and maintenance but were not available at the time this guide was prepared.

**Cleaning Precautions** – In cleaning your protective gloves:

- Use only mild detergents with a pH range of not less than 6.0 pH and not greater than 10.5 pH as indicated on the product's material safety data sheet (MSDS) or original container.
- Never use solvent or chlorine bleach or cleaning agents that contain chlorine bleach. These substances rapidly break down glove materials.
- Do not machine wash or dry gloves.
- Do not use wash water or drying temperatures above 105°F (40°C).
- Wear protective gloves and eye/face splash protection when cleaning soiled items.
- Do not wash your protective gloves or other protective clothing with personal items, in your personal laundry, or at a laundromat.
- Do not dry clean your protective gloves.

### Honeywell Life Safety

Honeywell First Responder Products

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**Routine Cleaning** – Clean your protective gloves after each use or whenever your gloves become soiled. Use the following procedures for routine cleaning by hand of your protective gloves in a utility sink:

1. Choose a utility sink that is specifically used for cleaning protective clothing; do not use a kitchen sink or other sink that is employed for personal products.
2. Brush off any loose debris.
3. Fill the utility sink with warm water.
4. Use a mild detergent in volume according to the detergent supplier's instructions.
5. Without immersing the gloves, scrub the exterior of the gloves gently using a soft-bristle brush. **DO NOT USE A BRUSH ON THE ALUMINIZED SHELL OF PROXIMITY FIREFIGHTING GLOVES.** Instead, use a sponge or soft cloth for cleaning soil from these surfaces
6. Drain and rinse the sink with clean water and then refill it with warm water.
7. Gently wash the interior of the glove by immersing it in water with a mild detergent.
8. Drain the sink and thoroughly rinse the gloves. Conduct a second rinse if necessary.
9. Inspect the gloves and, where necessary, rewash the protective gloves or submit them for advanced cleaning procedures.
10. Dry the gloves by gently squeezing them dry. Do not tightly wring gloves, as this may compromise the liquid barrier.
11. Hang gloves for air drying by the loop provided inside the cuff in a well-ventilated area, but not in direct sunlight. Do not force-dry the gloves with a hair dryer, or place them over a heating duct or radiator. Forced drying will cause gloves to stiffen.
12. Rinse the utility sink using routine cleaning procedures.

**Advanced Cleaning** – Your protective gloves must be subjected to an advanced cleaning at least every 12 months at the time of advanced inspection or whenever soiling requires additional cleaning. Advanced cleaning must be performed by a verified organization or by a verified Independent Service Provider (ISP) that has been accepted by Honeywell.

**Decontamination** – Proper decontamination of your protective gloves will depend on the type and extent of contamination. If your protective gloves become contaminated with blood or body fluids, immediately isolate the gloves and inform your supervisor, department, or organization. Your protective gloves must be subjected to an advanced cleaning using specialized procedures.

If your protective gloves become contaminated with chemicals or other hazardous substances, immediately isolate your gloves and remove them from service, taking care not to cross-contaminate other clothing items. Immediately inform your supervisor, department, or organization. Do not wear protective gloves that were contaminated until verification has been provided that your protective gloves are free from contamination.

**Repairs** – Do not attempt to repair your gloves. If damaged, report the damage to your supervisor, department, or organization and obtain a new set of gloves as a replacement. Your protective gloves must be repaired only by Honeywell or an organization that has been qualified by Honeywell First Responder Products.

## Retirement and Disposal

The decision for the continued service of your protective gloves must be made by a qualified individual within your department or organization. If you have any doubts about your protective gloves and their condition, immediately bring this matter to the attention of your supervisor, department, or organization. Protective gloves that are no longer deemed serviceable for reasons of damage, contamination, or other unsafe condition must be disposed of in a fashion (such as cutting them in unusable pieces) whereby the gloves cannot be reused. Contaminated gloves must be disposed of by your department or organization in accordance with federal, state/provincial, or local regulations.

If your hands or other parts of your body are burned or injured while you are wearing your protective gloves, your protective gloves must be removed from service and retained by your department or organization for an appropriate period as determined by your department or organization.

## Warranty

Honeywell warrants that all first responder protective gloves are free from defects in material and workmanship for the useful life of the product. This warranty specifically excludes accidental damage (acid, tears on nails, etc.), intentional or unintentional abuse, natural disasters, damage caused by disregard of care instructions, and normal wear. **THESE WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE.** A full warranty statement can be found at [www.HoneywellFirstResponder.com](http://www.HoneywellFirstResponder.com).

## Contact Information

If you have questions or require more information, contact Honeywell First Responder Products.