

Personal protective equipment (PPE) for the Roofing Industry

Personal protective equipment (PPE) must be used wherever physical contact, absorption, or inhalation of a hazard could cause any injury or impairment to the function of any part of the body.

Potential Hazards:

- Hazardous atmosphere
- Environmental hazards;
- Chemical hazards;
- Radiological hazards;
- Mechanical irritants.

Personal Protective Equipment must always be:

- Adequate
- Properly maintained
- Sanitary

Protective clothing;

Must wear at least:

- A short-sleeved shirt that covers the top of the shoulder and has material extending down the arm. If a short-sleeved shirt has a seam at the end of the shoulder, the material must extend down the arm from the seam.
- Long pants that have legs that extend past the knee when the wearer stands and leaves no exposed skin on the lower leg.
- Shoes must be worn at all times. The soles and heels of shoes must be made of material that will not cause or create a slipping hazard. Shoes that have deteriorated to a point where it does not provide the required protection cannot be used. Traditional tennis shoes, shoes with canvas tops, or thin or soft soled athletic shoes, open toed sandals, slippers, dress shoes or other similar type shoes cannot be worn. Soft or athletic-type soles with uppers of leather or other substantial material may be used where firm footing is desired and where minimal danger of injury to feet from falling or moving objects. If there is a danger of injury to the feet through falling or moving object, burning, scalding, cutting, or penetration substantial footwear made of leather or other equally firm material must be worn.

- If working with machinery and there is a danger of contact with moving parts or the work process is such that a hazard exists the clothing must fit closely around the body. Dangling neck wear, bracelets, wristwatches, rings, or similar articles must not be worn.
- During daylight hours, when duties are performed in close proximity to moving vehicles, a high-visibility safety vest, shirt, or jacket that is fluorescent yellow-green, fluorescent orange-red, or fluorescent red in color must be worn. This garment must always be worn as an outer garment.

Head Protection:

All employees on any construction site shall be provided, free from employers, an individual hard hat. Hard hats protect against impact and/or penetration of falling and flying objects. The hard hat must meet the specifications contained in American National Standards Institute, Z89.1-1969, Safety Requirements for Industrial Head Protection. If there is a danger of exposure to high voltage electrical shock and burns the hard hat must meet the specifications contained in American National Standards Institute, Z89.2-1971.

The hard hat can be removed if there is no potential to exposure of impact and/or penetration of falling and flying objects.

Eye Protection:

The cost of proper eye protection during roofing projects is priceless because you risk losing your vision without it. Don't be tempted to wear sunglasses instead of safety glasses at work – regular sunglasses will not protect your eyes from all potential hazards. Many workers don't want to wear safety glasses because they think they look silly, but safety-equipment companies make various styles of safety glasses that look good while protecting your eyes.

What are safety glasses?

- Safety glasses are protective equipment that will not break when flying particles hit them. Their lenses also will not pop out or shatter when something strikes them.
- Safety glasses also keep particles from getting near your eyes – they fit close to your cheeks and eyebrows and are equipped with side shields.

When you obtain safety glasses from the store or your company, look to make sure "ANSI Z87.1" is stamped on the frame, arms and eye pieces. This means the safety glasses meet the American National Standards Institute (ANSI) criteria and will protect your eyes.

Workers also should wear safety glasses when torch cutting and welding.

- Sunglasses are not rated for the same ultraviolet radiation produced by torch cutting and welding.
- Torch cutting and welding also produce infrared radiation, which most sunglasses cannot protect against.
- There are varying degrees of safety glass shades to consider when welding or torch cutting. A supervisor should choose appropriate shades.

What if you use corrective lenses?

If you require the use of corrective lenses in spectacles, you must be protected by goggles or spectacles of one of the following:

- Spectacles whose protective lenses provide optical correction
- Goggles that can be worn over corrective spectacles without disturbing the adjustment of the spectacles
- Goggles that incorporate corrective lenses mounted behind the protective lenses.

Roofing work produces, dirt, flying particles, radiation and other things that can damage your eyes. If your eyes are damaged, it may not be possible to repair your eyesight. Protect your eyes by wearing appropriate safety glasses.

Hearing Protection:

Wear hearing protectors, provided free from employer, that will provide sufficient protection when exposure equals or exceeds:

- 85 dBA TWA8 (noise dosimetry, providing an average exposure over an 8-hour time period)
- 115 dBA (slow response sound level meter, identifying short-term noise exposures)
- 140 dBC (fast response sound level meter, identifying almost instantaneous noise exposures).

Types of Hearing Protection:

- Single hearing protection (i.e. earplugs, earcaps, earmuffs): 7 dB less than the manufacturer assigned noise reduction rating (NRR); for example, earplugs with an NRR of 20 dB are considered to reduce employee exposures of 95 dBA TWA8 to 82 dBA TWA8
- Dual hearing protection (i.e. earplug and earmuff worn together): 2dB less than the higher NRR of the 2 protectors; for example, earplugs with an NRR of 20 dB and earmuffs with an NRR of 12 dB are considered to reduce employee exposures of 100 dBA TWA8 to 82 dBA TWA8

You will be able to choose from at least 2 distinct types of hearing protectors(i.e. molded earplugs, foam earplugs, custom-molded earplugs, earcaps, or earmuffs)

Make sure your choice in hearing protectors fits the level of noise exposure. Your noise level after hearing protectors are applied must be a level below 85 dBA TW_{A8},

If you need special hearing protectors do to comfort, environmental conditions, or medical needs discuss with employer.

Hearing protectors must fit properly and replaced as necessary.

Respiratory Protection:

Sometimes, roofing workers may need to wear respiratory protection to keep from breathing air contaminants, such as solvents, coal-tar pitch and dust.

There are two types of respirators: air-purifying and atmosphere-supplying.

- Air-purifying respirators clean contaminated air as it moves through filters. Air-purifying respirators typically are what roofing workers wear to protect themselves from contaminants. When working in dusty environments, a high-efficiency particulate air (HEPA) filter is used. HEPA filters trap contaminants and dust onto filtering paper so they do not enter workers' lungs. If solvents are used for a project, in some cases air-purifying respirators with activated carbon filters are used. When a worker inhales while wearing a carbon-filtered respirator, air is drawn through the carbon and contaminants bond to the carbon and stay in the filter.
- Atmosphere-supplying respirators provide roofing workers with uncontaminated air from oxygen tanks. These respirators are used when

contaminates are so highly concentrated there is not enough clean air to breathe.

Your company must consider the following requirements before allowing workers to wear respirators:

- Workers must be physically capable of wearing respirators
- A written respiratory protection program must be implemented and air samples occasionally must be taken to ensure a respirator is effective
- A worker wearing a respirator must be cleanly shaven so the respirator can seal to his face
- When a worker wears a respirator that covers his entire face, including his eyes, he cannot wear glasses
- If a worker needs corrective lenses, special adapters and lenses must be purchased
- An area must be supplied for workers to maintain and clean their respirators