



Tool Box Safety Talk No. 2

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Specialized Personal Protective Equipment

The proper selection and use of personal protective equipment is essential for maintaining your health and safety on construction sites. Personal protective equipment includes but is not limited to hardhats, work clothing and safety footwear. Specialized personal protective equipment including eye, noise and respiratory protection will be dealt with in this toolbox meeting topic.

Eye Protection

Most eye injuries are preventable and the selection of proper protective eyewear for the task being performed is critical. There are many types of eye protection available and choose the correct one for the task. Do not try to make due with eye protection required for another task. Consult the O H & S regulations to determine where eye protection must be worn. Safety glasses certified by Canadian Standards Association (CSA) will have Z94.3 stamped on them with or without the CSA logo. Sun or reading glasses and contact lenses do not provide adequate eye protection and should never replace safety glasses. If eyeglasses are worn obtain a prescription for protective eyeglasses for work. Protective eyewear can be worn over vision correcting lenses. In some construction situations, contact lenses may contribute to eye damage by absorbing the chemical fume. Fine dust and gravel particles experienced in roofing pose a greater danger to contact wearers. Ensure that protective eyewear fits snugly but comfortably. Clean the lenses frequently. Permanently attached side shields will reduce the likely hood of dust particles entering for the side. When loading bitumen containers wear a full-face shield to avoid burns if splashed by the hot bitumen. Wear goggles during tear-off and when handling roofing gravel and ballast. Have the roofing crew identify job site tasks that require proper eye protection. Look at the eye protection currently being used by the crew and determine whether it is suitable for the work. Always wear protective eyewear where required to complete the task safely.

Hearing Protection

Many construction trades, including roofing, are exposed to high noise levels such as occurs when operating power hoists, roof cutters and sweepers. If noise is left uncontrolled hearing loss will occur over time. Wearing hearing protection can control high noise levels. Hearing protection should be worn when exposed to noise levels above 85 decibels. Most power tools operate above this minimum level. It can be difficult to reduce or control noise to acceptable levels on a construction site. The two common forms of hearing protection available are earplugs and earmuffs. The noise reduction rating (NRR) for this personal protective equipment is printed on the packaging. Because earmuffs are easily put on and removed they are useful for intermittent noisy work areas. Earmuff components can wear out over time and the tension springs and ear cushions require periodic replacement. Earplugs are light and simple to use for most applications. Plugs may be permanent or disposable types. Disposable earplugs should only be worn once and should not be reused.

Respirators

Respirators can range from disposable dust masks (filtering face pieces) to self-contained breathing apparatus with a full-face mask and air cylinder. Respirators reduce the exposure to air borne contaminants, they do not eliminate them. The hazard may be dust from tear off materials or fumes from roofing adhesives and chemical cleaners. Air-purifying respirators (APRs) filter the air as it is drawn through a filter or element. For most out of doors roofing tasks, when not using chemicals, a disposable air-purifying dust mask is sufficient for controlling air-borne contaminants. Air purifying masks must be fitted and worn correctly to provide proper protection from air borne debris. There are no all-purpose air-purifying respirators as different filters are required to control different hazards. Consult with the Material Safety Data Sheets (MSDS) for requirements when dangerous products that are being used. Tight fitting respirators will be required to control other air borne contaminants. Unfortunately one size does not fit all. Respirators require regular maintenance and filters should be changed when the filter(s) has been damaged or is hard to breathe through. Check the respirator face piece, straps, buckles, filters and valves for damage such as holes, cracks and splits prior to each use. Change filter elements when fume can be smelt or tasted when wearing the respirator. Damaged, missing or poorly seated valves can reduce respirator efficiency. Make sure that flexible inlet flapper valves are properly seated and not missing or damaged. The exhalation valve located at the bottom of the face piece may be accessed by removing its cover. Test respirator operation periodically by performing the positive and negative pressure tests. Breathing in while blocking the two (2) side air inlets performs the negative pressure test. If functioning correctly the face piece should collapse (be drawn in) and stay that way as your breath is held. Blocking the exhalation valve while trying to breathe out performs the positive pressure test. The face piece should bulge out and remain that way while your breath is held. Facial hair can prevent a good seal and fit of respiratory protective equipment.