

19—Personal Protective Equipment

a medium or low heeled shoe. Safety shoes are also available in women's styles and their use should be encouraged where sharp or heavy objects are handled or where there is other danger of injury to the worker's toes.

Rings, bracelets, and earrings commonly cause accidents. Many companies require that no jewelry or ornaments be worn on or near jobs involving moving machinery.

Rules on the use of protective equipment, such as eye protective devices, face shields, and respiratory protective equipment, such as discussed previously in this chapter, should apply to women as well as to men.

Cold weather clothing

In recent years thermal insulating underwear has become popular among outdoor workers because of its lightweight protection from the cold. Two types are generally available. One is a thermal knit cotton (Fig 19-55) patterned after regular underwear. The other consists of quilted materials (Fig 19-56). Dacron quilted between nylon is a common type of construction.

While this material does not catch fire any easier than cotton, once it starts burning, the nylon and Dacron melt, forming a hot plastic mass, not unlike hot pitch, which will adhere to skin and cause serious burns. Quilted insulating underwear is now available that has been made fire retardant to combat this danger.

A nylon material (called "Nomex"), that chars at a relatively high temperature and does not melt, is available. Glass fiber material is also available for special uses (Fig 19-49).

Special clothing

Safety experts have been very ingenious in developing many highly specialized types of clothing for protection against special hazards. A partial list includes such items as

High visibility and night hazard clothing for construction, utility, maintenance workers, police and firemen whose work exposes them to traffic hazards.

Disposable clothing made of plastic (Fig 19-51) or reinforced paper is available for exposure to low level nuclear radiation, or for

use in the drug and electronic industries where contamination may be a problem.

Leaded clothing of lead glass fiber cloth, leaded rubber or leaded plastic for laboratory workers and other personnel exposed to X rays or gamma radiation.

Electromagnetic radiation suit, which provides protection from the harmful biological effects of electromagnetic radiation found in high level radar fields and similar hazardous areas.

Conductive clothing, made of a conductive cloth, is available for use by linemen doing bare-hand work on extra-high voltage conductors. Such clothing keeps the worker at the proper potential.

For special applications, manufacturers have a vast number of materials they can draw upon to meet specific hazards.

Acknowledgment

The following companies and sources cooperated in furnishing illustrations of personal protective equipment for use in this chapter.

Acme Protective Equipment Co
American Industrial Hygiene Assn
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Bausch & Lomb, Inc
E. D. Bullard Co
Caterpillar Tractor Co
Chicago Eyeshield Co
David Clark Co
Detroit, Mich., Division of Instruction
E. I. du Pont de Nemours and Co., Inc
Eastern Safety Equipment Co., Inc
Ellwood Safety Appliance Co
Encon Manufacturing Co
Factory Stores
Ford Motor Co
Humble Oil & Refining Co
International Shoe Co
Jackson Products Co
Kennedy Ingalls, Inc
Midwest Glove Co
Mine Safety Appliance Co
NASA, Mississippi Test Facility
Owens-Corning Fiberglas
Raybestos-Manhattan, Inc
Redwing Shoe Co