

Personal Protective Equipment

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 light-weight protection from the cold. Two types are generally available. One is a thermal knit cotton (Fig 38-54) patterned after regular underwear. The other consists of quilted materials (Fig 38-55). 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 38-47).

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 expose them to traffic hazards

Disposable clothing made of plastic (Fig 38-51) 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
American Optical Co
Armco Steel Corp
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
Rose Manufacturing Co
Scott Aviation Corp
Sigma Engineering Co
Standard Safety Equipment Co
Universal Safety Equipment Co
Welsh Manufacturing Co
Western Electric Co., Inc
Westinghouse Electric Corp
Wheeler Protective Apparel, Inc
Willson Products Div., ESB Inc
U.S. Industrial Chemicals Co
U.S. Navy Electronics Laboratory