

ANEXO 07 – VESTIMENTAS E EQUIPAMENTOS DE PROTEÇÃO INDIVIDUAL – NFPA 70E

**Hazard/Risk
Category**

Protective Clothing and PPE

0 **Protective Clothing, Nonmelting or Untreated Natural Fiber (i.e., untreated cotton, wool, rayon, or silk, or blends of these materials) with a Fabric Weight of at Least 4.5 oz/yd²**

Shirt (long sleeve)

Pants (long)

Protective Equipment

Safety glasses or safety goggles (SR)

Hearing protection (ear canal inserts)

Heavy duty leather gloves (AN) (*See Note 1.*)

1 **Arc-Rated Clothing, Minimum Arc Rating of 4 cal/cm² (*See Note 3.*)**

Arc-rated long-sleeve shirt and pants or arc-rated coverall

Arc-rated face shield (*see Note 2*) or arc flash suit hood

Arc-rated jacket, parka, rainwear, or hard hat liner (AN)

1 **Protective Equipment**

Hard hat

Safety glasses or safety goggles (SR)

Hearing protection (ear canal inserts)

Heavy duty leather gloves (*See Note 1.*)

Leather work shoes (AN)

2 **Arc-Rated Clothing, Minimum Arc Rating of 8 cal/cm² (*See Note 3.*)**

Arc-rated long-sleeve shirt and pants or arc-rated coverall

Arc-rated flash suit hood or arc-rated face shield (*See Note 2*) and arc-rated balaclava

Arc-rated jacket, parka, rainwear, or hard hat liner (AN)

Protective Equipment

Hard hat

Safety glasses or safety goggles (SR)

Hearing protection (ear canal inserts)

Heavy duty leather gloves (*See Note 1.*)

Leather work shoes

3 Arc-Rated Clothing Selected so That the System Arc Rating Meets the Required Minimum Arc Rating of 25 cal/cm² (See Note 3.)

Arc-rated long-sleeve shirt (AR)

Arc-rated pants (AR)

Arc-rated coverall (AR)

Arc-rated arc flash suit jacket (AR)

Arc-rated arc flash suit pants (AR)

Arc-rated arc flash suit hood

Arc-rated gloves (*See Note 1.*)

Arc-rated jacket, parka, rainwear, or hard hat liner (AN)

Protective Equipment

Hard hat

Safety glasses or safety goggles (SR)

Hearing protection (ear canal inserts)

Leather work shoes

4 **Arc-Rated Clothing Selected so That the System Arc Rating Meets the Required Minimum Arc Rating of 40 cal/cm² (*See Note 3.*)**

Arc-rated long-sleeve shirt (AR)

Arc-rated pants (AR)

Arc-rated coverall (AR)

Arc-rated arc flash suit jacket (AR)

Arc-rated arc flash suit pants (AR)

Arc-rated arc flash suit hood

Arc-rated gloves (*See Note 1.*)

Arc-rated jacket, parka, rainwear, or hard hat liner (AN)

Protective Equipment

Hard hat

Safety glasses or safety goggles (SR)

Hearing protection (ear canal inserts)

Leather work shoes

AN: as needed (optional). AR: as required. SR: selection required.

Notes:

(1) If rubber insulating gloves with leather protectors are required by Table 130.7(C)(9), additional leather or arc-rated gloves are not required. The combination of rubber insulating gloves with leather protectors satisfies the arc flash protection requirement.

(2) Face shields are to have wrap-around guarding to protect not only the face but also the forehead, ears, and neck, or, alternatively, an arc-rated arc flash suit hood is required to be worn.

(3) *Arc rating* is defined in Article 100 and can be either the arc thermal performance value (ATPV) or energy of break open threshold (E_{BT}). ATPV is defined in ASTM F 1959, *Standard Test Method for Determining the Arc Thermal Performance Value of Materials for Clothing*, as the incident energy on a material, or a multilayer system of materials, that results in a 50 percent probability that sufficient heat transfer through the tested specimen is predicted to cause the onset of a second-degree skin burn injury based on the Stoll curve, in cal/cm^2 . E_{BT} is defined in ASTM F 1959 as the incident energy on a material or material system that results in a 50 percent probability of break-open. Arc rating is reported as either ATPV or EBT, whichever is the lower value.