

Policy No.: OS001	Approved by: Mark Cavanaugh
Title: Energized Electrical Safety	Date: 6/15/2020
Revision No.: 6	Page 19 of 31
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Appendix D: Incident Energy Analysis Method PPE Selection: NFPA 70E Table 130.5 (G)

Table 130.5(G) Selection of Arc-Rated Clothing and Other PPE When the Incident Energy Analysis Method Is Used

Incident energy exposures equal to 1.2 cal/cm² up to 12 cal/cm²
Arc-rated clothing with an arc rating equal to or greater than the estimated incident energy ^a
Long-sleeve shirt and pants or coverall or arc flash suit (SR)
Arc-rated face shield and arc-rated balaclava or arc flash suit hood (SR) ^b
Arc-rated outerwear (e.g., jacket, parka, rainwear, hard hat liner) (AN)
Heavy-duty leather gloves, arc-rated gloves, or rubber insulating gloves with leather protectors (SR) ^c
Hard hat
Safety glasses or safety goggles (SR)
Hearing protection
Leather footwear
Incident energy exposures greater than 12 cal/cm²
Arc-rated clothing with an arc rating equal to or greater than the estimated incident energy ^a
Long-sleeve shirt and pants or coverall or arc flash suit (SR)
Arc-rated arc flash suit hood
Arc-rated outerwear (e.g., jacket, parka, rainwear, hard hat liner) (AN)
Arc-rated gloves or rubber insulating gloves with leather protectors (SR) ^c
Hard hat
Safety glasses or safety goggles (SR)
Hearing protection
Leather footwear

SR: Selection of one in group is required.
AN: As needed.

^aArc ratings can be for a single layer, such as an arc-rated shirt and pants or a coverall, or for an arc flash suit or a multi-layer system if tested as a combination consisting of an arc-rated shirt and pants, coverall, and arc flash suit.

^bFace shields with a wrap-around guarding to protect the face, chin, forehead, ears, and neck area are required by 130.7(C)(10)(c). Where the back of the head is inside the arc flash boundary, a balaclava or an arc flash hood shall be required for full head and neck protection.

^cRubber insulating gloves with leather protectors provide arc flash protection in addition to shock protection. Higher class rubber insulating gloves with leather protectors, due to their increased material thickness, provide increased arc flash protection.

PPE Requirements can be found in Appendix E Additional Information:

- V-rated Gloves are gloves rated and tested for the maximum line-to-line voltage upon which work will be done.
- V-rated Tools are tools that are rated and tested for the maximum line-to-line voltage upon which work will be done.
- 2(*) means that a double-layer switching hood and hearing protection are required for this task in addition to the other Hazard/Risk Category requirements of **Appendix E**.
- Y = Yes (required)
- N = No (not required)

Notes:

- (1) 25kA short circuit current available, 0.03 second (2 cycle) fault clearing time.
- (2) For < 10kZ short circuit current available, the hazard/risk category required may be reduced by one number.