Arc Flash PPE Requirements

NFPA 70E 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/cm^2 up to and including 12 cal/cm^2	Arc-rated clothing with an arc rating equal to or greater than the estimated incident energy [a] Arc rated long-sleeve shirt and pants or arc-rated 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, high-visibility apparel) (AN) [e] Heavy-duty leather gloves, arc-rated gloves, or rubber insulating gloves with protectors (SR) [c] Hard hat Safety glasses or safety goggles (SR) Hearing protection Leather footwear [d]
Incident energy exposures greater than 12 cal/cm^2	Arc-rated clothing with an arc rating equal to or greater than the estimated incident energy [a] Arc-rated long-sleeve shirt and pants or arc-rated coverall or arc flash suit (SR) Arc-rated arc flash suit hood Arc-rated outerwear (e.g., jacket, parka, rainwear, hard hat liner, high-visibility apparel) (AN) [e] Arc-rated gloves or rubber insulating gloves with protectors (SR) [c] Hard hat Safety glasses or safety goggles (SR) Hearing protection Leather footwear [d]

Specifications:

SR: Selection of one in group is required.

AN: As needed.

a: Arc 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.

b: Face 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.

c: Rubber insulating gloves with protectors provide arc flash protection in addition to electric shock protection. High class rubber insulating gloves with protectors, due to their increased material thickness, provide increased arc flash protection.

d: Footwear other than leather or dielectric shall be permitted to be used provided it has been tested to demonstrate no ignition, melting, or dripping at the estimated incident energy exposure.

e: The arc rating of outer layers worn over arc-rated clothing as protection from the elements or for other safety purposes, and that are not used as part of a layered system, shall not be required to be equal to or greater than the estimated incident energy exposure.