

Electrical PPE Categories for Qualified Employees

PPE CATEGORY	Personal Protective Equipment
1	Arc-Rated clothing Minimum arc Rating of 4 cal/cm² (See note 1) • Arc-rated long sleeve shirt and pants or arc-rated coverall • Arc-rated face shield (see note 2) or arc suit hood • Arc-rated jacket, parka, rainwear, or hat liner (as needed) Protective Equipment • Hard Hat • Safety Glasses or safety goggles (different applications required for different tasks) • Hearing Protection (Ear Canal Inserts) • Heavy Duty Leather (unless task requires the use of rubber insulating gloves and leather protractors. The combination of rubber insulating gloves with leather protectors satisfies the arc flash protection requirements) • Leather footwear (as needed)
2	Arc-Rated clothing Minimum arc Rating of 8 cal/cm² (See note 1) • Arc-rated long sleeve shirt and pants or arc-rated coverall • Arc-rated face shield (see note 2) or arc suit hood • Arc-rated jacket, parka, rainwear, or hat liner (as needed) Protective Equipment • Hard Hat • Safety Glasses or safety goggles (different applications required for different tasks) • Hearing Protection (Ear Canal Inserts) • Heavy Duty Leather (unless task requires the use of rubber insulating gloves and leather protractors. The combination of rubber insulating gloves with leather protectors satisfies the arc flash protection requirements) • Leather footwear (as needed)
3	Arc-Rated clothing selected so that the system arc Rating meets the required minimum arc rating of 25 cal/cm² (See note 1) • Arc-rated long sleeve shirt • Arc-rated pants or arc-rated coverall • Arc-rated flash suit jacket and Arc-rated flash suit pants • Arc-rated flash suit hood • Arc-rated gloves (unless the task requires the use of rubber insulating gloves and leather protractors. The combination of rubber insulating gloves with leather protectors satisfies the arc flash protection requirements) • Arc-rated jacket, parka, rainwear, or hat liner (as needed) Protective Equipment • Hard Hat • Safety Glasses or safety goggles (different applications required for different tasks) • Hearing Protection (Ear Canal Inserts) • Leather footwear (as needed)



4	Arc-Rated clothing selected so that the system arc Rating meets the required minimum arc rating of 40 cal/cm² (See note 1) ● Arc-rated long sleeve shirt ● Arc-rated pants or arc-rated coverall ● Arc-rated flash suit jacket and Arc-rated flash suit pants ● Arc-rated flash suit hood ● Arc-rated gloves (unless the task requires the use of rubber insulating gloves and leather protectors. The combination of rubber insulating gloves with leather protectors satisfies the arc flash protection requirements) ● Arc-rated jacket, parka, rainwear, or hat liner (as needed) Protective Equipment ● Hard Hat ● Safety Glasses or safety goggles (different applications required for different tasks) ● Hearing Protection (Ear Canal Inserts) ● Leather footwear (as needed)
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Note (1) Arc rating is the value attributed to materials that describes their performance to exposure to an electrical arc discharge. The arc rating is expressed in cal/cm² and is derived from the determined value of the arc thermal performance value (ATPV) or energy of breakopen threshold (E_{BT}) (should a material system exhibit a breakopen response below the ATPV value). Arc rating is reported as either ATPV or E_{BT}, whichever is the lower value. See NFPA 70 e article 100 Arc Rating definition for more information.

Note (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.

Qualified employees shall wear rubber insulating gloves with leather protectors and rubber insulating sleeves where there is danger of hand arm injury from electric shock due to contact with energized electrical conductors or circuit parts.

INSULATED RUBBER GLOVES ARE TO BE WORN WITH LEATHER PROTECTORS

ASTM Labeling Chart

Class	Test AC Volts	Maximum Use AC Volts	Test DC Volts	Maximum Use DC Volts	Label Color
00	2,500	500	10,00	750	Beige
0	5,000	1,000	20,000	1,500	Red
1	10,000	7,500	40,000	11,250	White
2	20,000	17,000	50,000	25,500	Yellow
3	30,000	26,500	60,000	39,750	Green
4	40,000	36,000	70,000	54,000	Orange

