

WHAT YOU NEED TO KNOW

A PowerHawke Informational Series

Electrical Safety Services

Arc Flash & Shock Hazard PPE

An arc flash incident results from electrical tasks being conducted without proper precautions. The flash itself is a “fireball” that can permanently disable or disfigure an individual in a fraction of a second, and can even kill. Electrical shock is a separate but closely related NFPA 70E issue when it comes to working safely.

ELECTRICAL ARC/BLAST PERSONAL PROTECTIVE EQUIPMENT

NFPA 70E 2015 Table 130.7(C)(16) personal Protective Equipment (PPE)

Hazard/Risk

Category

4 cal/cm²

1

Arc-rated long-sleeve shirt
Arc-rated pants or overall
Arc-rated face shield with hard hat
Safety glasses
Hearing protection
Leather & voltage rated gloves (as needed)
Leather work shoes



Hazard/Risk

Category

8 cal/cm²

2

Arc-rated long-sleeve shirt
Arc-rated pants or overall
Arc-rated face shield & balaclava or
Arc flash suit with hard hat
Safety glasses, Hearing protection
Leather & voltage rated gloves (as needed)
Leather work shoes



Hazard/Risk

Category

25 cal/cm²

3

Arc-rated long-sleeve jacket
Arc-rated pants
Arc-rated flash hood with hard hat
Safety glasses, Hearing protection
Leather & voltage rated gloves (as needed)
Leather work shoes



Hazard/Risk

Category

40 cal/cm²

4

Arc-rated long-sleeve jacket
Arc-rated pants
Arc-rated flash hood with hard hat
Safety glasses, Hearing protection
Leather & voltage rated gloves (as needed)
Leather work shoes



Electric Shock

ELECTRICAL SHOCK PERSONAL PROTECTIVE EQUIPMENT

ASTM Protective Rubber Equipment Labeling Chart

CLASS COLOR	PROOF TEST VOLTAGE AC/DC	MAX. USE VOLTAGE* AC/DC	RUBBER MOLDED PRODUCTS LABEL	INSULATING RUBBER GLOVE LABEL	INSULATING RUBBER DIPPED SLEEVE LABEL
Beige 00	2,500 / 10,000	500 / 750			
Red 0	5,000 / 20,000	1,000 / 1,500			
White 1	10,000 / 40,000	7,500 / 11,250			
Yellow 2	20,000 / 50,000	17,000 / 25,500			
Green 3	30,000 / 60,000	26,500 / 39,750			
Orange 4	40,000 / 70,000	36,000 / 54,000			

ASTM SPECIFICATION REFERENCE

D120	Rubber Insulating Gloves	F696	Leather Protectors for Insulating Gloves & Mittens
D178	Rubber Insulating Matting	F1236	Inspection Guide for Rubber Products
D1048	Rubber Insulating Blankets	F1742	PVC Insulating Sheeting
D1049	Rubber Insulating Covers	F2320	Rubber Insulating Sheeting
D1050	Rubber Insulating Line Hose	F2677	Electrically Insulating Aprons
D1051	Rubber Insulating Sleeves	Type I	Designates natural rubber
F 478	In-Service Care of Line Hose & Covers	Type II	Designates SALCOR® UV and ozone resistant rubber
F479	In-Service Care of Insulating Blankets		
F496	In-Service Care of Gloves & Sleeves		

*Max. Use voltage when worn with leather protectors.

Insulating gloves and sleeves must have a color-coded label to meet appropriate ASTM Specifications

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