## HELD TO A HIGHER STANDARD

Flame Resistant Apparel Guide



## PROTECTION FOR ELECTRICAL SAFETY HAZARDS.











TINGLEY

SAF-I-GARD®

Phone Order: 1-800-548-GARD (4273) Fax: 1-888-548-GARD (4273) Email: sales@saftgard.com | www.saftgard.com

### KNOW THE STANDARDS & TEST METHODS



#### **ASTM D6413**

Baseline test method for the flame resistance of textiles.



#### **ASTM F1959**

Panel test to determine Arc Rating of a material.



#### **ASTM F1930**

Manikin test for flash fire, measures total body burn.



#### **ASTM F1506**

Minimum Performance Standard for Arc and Flame-Resistant Clothing



#### **ASTM F1891**

Minimum Performance Standard for Arc and Flame-Resistant Rainwear



#### **ASTM F2733**

Flash Fire Standard for Rainwear Total Body Burn <40% to pass

Requires that material receives an Arc Rating per ASTM F1959



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#### NFPA 70E

The National Fire Protection Association Standard
Wear arc rated clothing when exposed to any thermal
hazard significant enough to cause second degree burns.

PPE must meet the below standards + provide adequate protection for the hazard risk:

\*To be compliant, rainwear must meet ASTM F1891

HAZARD RISK CATEGORY (CAT)	MINIMUM ARC RATING
CAT 1	4 CAL/CM <sup>2</sup>
CAT 2	8 CAL/CM <sup>2</sup>
CAT 3	25 CAL/CM <sup>2</sup>
CAT 4	40 CAL/CM <sup>2</sup>



#### KNOW THE MATERIAL



#### **Modacrylic / Cotton**

- Won't melt or drip when exposed to flame
- Provides high-visibility performance



**PVC** on Nomex®

- Extreme heat thickens fibers to increase protective barrier
- Excellent heat resistant properties



FR PVC / Polyester

- Lightweight, durable with limited flame resistance
- Self-extinguishing when flame is removed



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#### KNOW THE HAZARD RISK

CAT 1: Minimum Arc Rating 4 cal/cm<sup>2</sup>

#### **High Visibility & Flame Resistance**

- Electric Utilities
- Telecommunications

Modacrylic / Cotton Blend

JOB SIGHT FR CLASS 2 VISIBILITY





6.8 cal/cm<sup>2</sup> Arc Rating







**Breakaway Vest** 6.8 cal/cm<sup>2</sup> Arc Rating

6.8 cal/cm<sup>2</sup> Arc Rating

CAT 2: Minimum Arc Rating 8 cal/cm<sup>2</sup>

#### **High Visibility & Flame Resistance**

- **Electric Utilities**
- Telecommunications

Modacrylic / Cotton Blend

JOB SIGHT FR CLASS 3 VISIBILITY





15 cal/cm<sup>2</sup> Arc Rating

#### KNOW THE HAZARD RISK

#### CAT 2: Minimum Arc Rating 8 cal/cm<sup>2</sup>

#### **Wide-Ranging FR Rain Wear**

- Electric & Gas Utilities
- Pipeline & Construction
- Power Generation
- Energy Exploration



**ECLIPSE**QUAD-HAZARD PROTECTION

High-Visibility - Liquid Proof - Arc Resistant - Flash Fire Compliant (Excludes Coats)

PVC on Non-Woven Nomex®



Yellow-Green Jacket 8.7 cal/cm<sup>2</sup> Arc Rating



Yellow-Green Overalls 8.7 cal/cm<sup>2</sup> Arc Rating



Yellow-Green Coat 8.7 cal/cm<sup>2</sup> Arc Rating



Orange-Red Jacket 11 cal/cm<sup>2</sup> Arc Rating



Orange-Red Overalls 11 cal/cm<sup>2</sup> Arc Rating



Orange-Red Coat 11 cal/cm<sup>2</sup> Arc Rating

#### KNOW THE HAZARD RISK

#### CAT 2: Minimum Arc Rating 8 cal/cm<sup>2</sup>

#### **Flash Fire & Chemical Protection**

- Petrochemical
- Off-Shore Drilling
- Chemical



Liquid Proof - Arc Resistant - Flash Fire Compliant

**PVC on Non-Woven Nomex®** 

ECLIPSE
TRI-HAZARD PROTECTION



Blue Jacket
14 cal/cm<sup>2</sup> Arc Rating



Blue Overalls
14 cal/cm<sup>2</sup> Arc Rating



14 cal/cm<sup>2</sup> Arc Rating

#### Flame Resistant / Self-Extinguishing ASTM D6413

#### Safety, Comfort & Affordability

Construction

General Industry

Heat-Sealed PVC on Polyester

COMFORT-BRITE
IGHTWEIGHT AND DURABLE





\*Self extinguishing with flameout and afterglow less than or equal to 2 seconds after removal of ignition source and char length less than 6 inches.



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