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HEAVY INDUSTRY · PPE COMPLIANCE MATRIX

Heavy Industry PPE Compliance Matrix

Five standards cross-referenced to hazard type, required documentation and the verification method that proves each one.

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DISCLAIMER

This resource is practical procurement guidance written from a China-side workwear factory's perspective. It is not legal, safety or compliance advice. FR and hi-vis standards, arc ratings and certification scope vary by garment, market and edition; confirm every value against the current standard, a verifiable certificate and an accredited lab report before you commit funds.

Heavy industry PPE resource | Document ID: SPEC-HVY-MATRIX-001

Purpose

Cross-reference matrix for the five primary standards governing heavy industry PPE. Use this to map each hazard type to its applicable standard, required documentation, and verification method.

Standard Cross-Reference Matrix

STANDARD	HAZARD TYPE	KEY TEST	DOCUMENTATION REQUIRED	VERIFICATION METHOD
NFPA 2112 (2023 ed.)	Flash Fire	ASTM D6413 — Vertical Flame ASTM F1930 — Thermal Manikin	Component certificate from ISO 17065-accredited certifier Batch-level test reports Certifier directory listing (UL Product iQ)	Verify Certificate Number + Certifying Body name in UL Product iQ directory. Confirm mill name, fabric style number, cert expiry date match.
EN 11612	Heat & Flame (general industrial)	ISO 15025 — Limited Flame Spread ISO 11611 — Welding protection (if applicable)	CE Type-Examination Certificate Notified Body test reports Declaration of Conformity	Verify Notified Body number against NANDO database. Check certificate scope covers your garment type.
ANSI/ISEA 107 (2020 ed.)	High-Visibility	Retroreflectivity (ASTM E809/E810) Background luminance (color box) Photometric performance	3M Scotchlite certificate of authenticity Batch-level retroreflectivity test Labeling verification (Class/Type/Pictogram)	Physical inspection: 360° tape coverage, ANSI label with Class/Type/pictogram, fluorescent shade under D65 lighting.
ASTM F1506	Arc Flash	ASTM F1959 — Arc Rating (ATPV / EBT) ASTM D6413 — Vertical Flame	Arc rating test report with ATPV/EBT values Component certificate Batch flame test reports	Verify arc rating on garment label matches test report. Confirm fabric lot in test report matches current production.
NFPA 70E	Arc Flash PPE Categories	Arc Rating (ATPV) per ASTM F1959 PPE Category 1-4 classification	Arc rating label on garment PPE Category compliance statement Layered system test report (if multilayer)	Match garment PPE Category to site arc flash hazard analysis. Verify layered system testing covers all worn combinations.

Additional Heavy Industry Standards

STANDARD	APPLICATION	KEY REQUIREMENT
EN 1149	Anti-Static (Chemical, Explosive Atmospheres)	Surface resistivity ≤ 2.5×10^9 Ω. Carbon-core filament grid. Full garment test per EN 1149-3.
ASTM F2733	Flame-Resistant Rainwear	Flame resistant + waterproof. ASTM D6413 for FR. ASTM D751 for waterproof integrity.
NFPA 2113	FR Garment Selection, Care, Use & Maintenance	Employer's FR program requirements. Covers selection criteria, inspection frequency, retirement policy.
EN 61482	Arc Flash (EU)	Open arc test method. Box test (Class 1: 4kA, Class 2: 7kA).
ISO 11612	Heat & Flame (ISO equivalent to EN 11612)	Same test methods. Used in markets referencing ISO rather than EN standards.

Certification Bodies — Quick Reference

BODY	ACCREDITATION	DIRECTORY	COVERS
UL Solutions	ISO 17065	UL Product iQ (productiq.ul.com)	NFPA 2112, ASTM F1506, NFPA 70E
SEI / CSA Group	ISO 17065	CSA Group Product Listing	NFPA 2112, ASTM F1506
SGS	ISO 17025 (test lab)	N/A (lab, not certifier)	ASTM D6413, ASTM F1959, EN 11612 testing
Intertek	ISO 17025 (test lab)	N/A (lab, not certifier)	ASTM D6413, retroreflectivity, anti-static testing

Critical Distinction: ISO 17025 = testing laboratory accreditation. ISO 17065 = product certification body accreditation. Only an ISO 17065-accredited body can issue a component certificate with a verifiable directory listing. A test report from an ISO 17025 lab proves a sample passed — it is not a certificate. See the 7-Step Compliance Playbook for full verification workflow.

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Map the hazard to the standard behind it.

Send the hazard profile and garment list — a standard-by-standard matrix and a documentation checklist are returned with the quote.

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Request a free, transparent quote: https://www.lantaowork.com/contact-us/