

# DuraChem®

Multi-Hazard Protection

## DuraChem 200

Fabric Colors  
Hi-Vis Yellow Navy



## DuraChem® 200 Offers Triple-Certified Hi-Vis NPFA Protection

- DuraChem® 200 is the only breathable, Hi-Vis FR garment certified to 3 NPFA standards:
  - Chemical – NFPA 1992
  - Flame – NFPA 2112
  - Arc Flash – NFPA 70E
- Additional certifications and tests include Molten Metal Splash, plus Steam and Hot Water.
- Multi-purpose 24/7 protection for day or night work applications.
- Breathable fabric reduces heat stress and improves worker comfort and productivity.
- Launderable garment and unique flexible hood options simplify PPE selection and inventory.
- Excellent ANSI 107 visibility and reflectivity performance (ANSI 107 only applies to hi-vis Yellow fabric).



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NFPA 1992-2018 Chemical Test Battery\*

Chemical	Holdout Time In Minutes
Butyl Acetate (>95%)	>60
Dimethylformamide (>95%)	>60
Fuel H	>60
Isopropyl Alcohol (>91%)	>60
Methyl Isobutyl Ketone (>95%)	>60
Nitrobenzene (>95%)	>60
Sodium Hydroxide (50%)	>60
Sodium Hypochlorite (10%)	>60
Sulfuric Acid (93.1%)	>60

\*Chemical penetration testing was conducted in accordance with ASTM F903 Procedure C.

## Biohazard Testing – Fabric & Seams

Test Method	Results
ASTM F1670 (synthetic blood)	Pass
ASTM F1671 (viral penetration)	Pass

## Thermal and Burn Testing

Test Method	Results
Heat Thermal Performance (HTP) ASTM F2700	Spaced: 20.2 cal/cm2 Contact: 14.3 cal/cm2
Flame Resistance ASTM D6413	Char length: 1.06 in Afterflame: 0.0 sec
Thermal Protective Performance (TPP) ISO 17492	13.9 cal/cm2
Shrinkage/Heat Resistance ASTM F2894	8.0 %, 6.0% WARP, WEFT
Manikin Body Burn (Pyroman) ASTM F1930 Exposed Head, min - 6.56%	6.56% predicted body burn
Heat Transfer Molten Substances ASTM F955	Aluminum @ 1400 F: 19.8sec to 2 <sup>nd</sup> burn 34.6°C increase Iron @ 2800 F: no burn 11.7°C increase Sulfur @ 302 F: no burn 9.5°C increase
Electric Arc Rating ASTM F1959	APTV = 13 cal/cm2
Steam 302°F @ 30 psi @ 2.4" University of Alberta (CAN/CSGB 155.20)	6.8 Seconds to 2nd Degree Burn 19.8 Seconds to 3rd Degree Burn
Hot Water (185°F @ 6L/min) @ 2.0" University of Alberta (CAN/CSGB 155.20)	No Burn

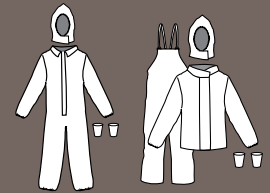
## Comfort Testing

Test Method	Results
Total Heat Loss ASTM F1868 Procedure C	492.9 W/m2
Evaporative Resistance ISO 11092 7.4	13.955 Pa-m2/W
Cold Temperature Performance ASTM D747	0.009 in/lb
Water Vapor Transmission ASTM E96	3158 g/m2-24hr

Hi-Visibility Note: DuraChem 200 meets the most stringent requirements of ANSI/ISEA 107-2015 as specified for Type R, Class 3.



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Shown above are typical garment types for this fabric. View available styles and details at [kappler.com](http://kappler.com)

Attachable hood on jacket with secure hook-and-loop closure.

Navy color with optional reflective stripes is ideal for law enforcement.



**Our labels work harder, and smarter.** Kappler's unique SMART™ label makes sizing easy to see, and a quick QR code scan provides complete chemical data plus extensive suit details.

Adjustment straps at ankles and wrists, plus other unique design features.

**Note:** These tests were performed in accordance with ASTM or other appropriate testing methods by independent laboratories. This data is derived from tests performed on material samples only, not finished garments, with exception of Pyroman full-body manikin test. For a complete list of chemicals tested and additional tech data visit [kappler.com](http://kappler.com).

**WARNING:** This information is based on technical data that Kappler believes to be reliable. It is subject to revision as additional knowledge and experience are gained. The website will contain Kappler's most up-to-date product information, and customers who receive pamphlets, brochures or other literature should be aware that such "hard copy" information may not be as current as the information on Kappler's website. Customers also should recognize that there are uses, environments and chemicals for which Kappler products, garments and/or fabrics are unsuitable. It is the responsibility of the user to review available data and verify that the product, garment and/or fabric is appropriate for the intended use and meets all specified government and/or industry standards. Also, the customer should review all available information on the website to understand the uses – and limitations – on ALL products, garments and fabrics which Kappler makes available. **CAUTION:** Do not use for fire protection. Avoid open flame or intense heat.

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