# Frontline® Chemical/FR Protection



### Splash-And-Flash Protection For Petrochemical Environments.

- Three-way protection for chemical, flash-fire and radiant heat.
- Ideal for petrochemical line break operations – developed with input from petrochemical safety officers.
- Proven with demanding Pyroman Thermal Manikin testing.
- Multi-use, single-exposure garment provides economical alternative to expensive reusable FR apparel.
- Coverall and ensemble styles offer flexibility for a wide variety of work situations.
- Applications: Line maintenance, tank cleaning, refueling situations.









## Frontline 300 ASTM F1001 Chemical Test Battery\*

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Chemical	Minutes
Acetone	>480
Acetonitrile	>480
Carbon Disulfide	>480
Dichloromethane	10
Diethylamine	>480
Dimethylformamide	>480
Ethyl Acetate	>480
n - Hexane	>480
Methyl Alcohol	>480
Nitrobenzene	>480
Sodium Hydroxide	>480
Sulfuric Acid	>480
Tetrachloroethylene	>480
Tetrahydrofuran	>480
Toluene	>480
Gases	
Ammonia Gas	>480
1,3 Butadiene Gas	>480
Chlorine Gas	>480
Ethylene Oxide Gas	>480
Other Chemicals Tested	
Benzene	>480
Diesel Fuel	>480
Diethylethanolamine	>480
Gasoline	>480
Hydrofluoric acid (48%)	>480
Kerosene	>480
Methanol	>480

<sup>\*</sup> Industrial chemical testing was conducted in accordance with ASTM F 739 with normalized breakthrough times reported in minutes.

### Frontline garments are designed for chemical flash-fire protection FOR ESCAPE ONLY in the event of a chemical flash fire.

**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.

WARNING: The information contained herein is based on technical data that Kappler believes to be reliable. It is subject to revision as additional knowledge and experience are gained. Please visit our website at www.Kappler.com ("Kappler Website") for the most up-to-date product information and specifications. All pamphlets, brochures or other literature or printed material may contain information that is not as current as the information on Kappler's website. Additionally, there are uses, environments and chemicals for which Kappler products, garments and/or fabrics are unsuitable. The user has the responsibility to review all available data and verify the product, garment and/or fabric is appropriate for the intended use and meets all specified government and/or industry standards for such use. The user should review all available information on the Kappler Website, product labels and QR codes to understand the appropriate uses and limitations of Kappler products, garments and fabrics. CAUTION: These garments are designed for protection of personnel against short duration thermal exposures. Do no use for firefighting applications. Minimize exposure to open flame or intense heat.

Frontline 300 fabric does not contain PFAS chemistry.

Kappler\*



Reinforced knee area for added confidence and work flexibility.

Frontline 300 offers true "splash-and-flash" protection, plus excellent radiant heat protection.

#### Frontline 300 Heat, Flame and Thermal Test Data

Frontline 300 has been tested for thermal protective performance (TPP) in accordance with ISO 17492, Clothing for Protection Against Heat and Flame, and showed a TPP value of 16.

Frontline 300 meets the requirements for flame resistance in accordance with ASTM F1358.

Frontline 300 has been tested in accordance with ASTM F 1930-00 Standard Test Method for Evaluation of Flame Resistant Clothing for Protection Against Flash Fire Simulations Using an Instrumented Manikin. The Frontline 300 ensemble garment indicated less than 1% body burn after a three-second burn test.



Scan this QR code for a dramatic video of the Pyroman flame test on the Frontline® Chemical/FR suit shown here.

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