

# Inadvertent Chemical Splash & Flame Resistant Fabric

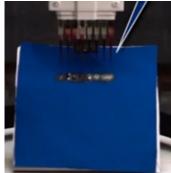
Westex® ShieldTEC combines Milliken's innovative expertise and patented softening technology with 100% DuPont® Nomex® IIIA fibers to provide superior comfort, chemical splash resistance and flame resistance and all in one fabric.



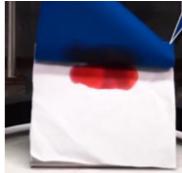
- NFPA 2112 Certified
- Inadvertent Chemical Splash Resistance
- High breathability for excellent comfort

## INADVERTENT CHEMICAL SPLASH RESISTANT

Through 50 industrial launderings to a range of chemicals including Ethanol, DMSO and Acetonitrile.\*



Range of Chemicals  
Including Ethanol,  
DMSO & Acetonitrile\*



Regular FR Lab Coat



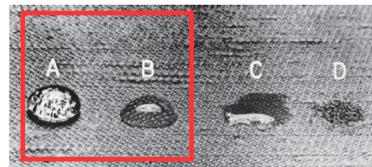
**WESTEX®**  
ShieldTEC

Inadvertent chemical splash resistance is necessary for workers that may be exposed to small quantities of liquid chemicals and/or solvents at atmospheric pressures. These conditions – where personnel may come in contact with small amounts of chemicals – are experienced in a range of environments including but not limited to educational laboratories, light industrial, and service industries. Westex ShieldTEC is designed to shed a variety of chemicals when they are dropped or splashed onto the fabric and to resist them from wicking through the fabric, thus limiting the exposure to the wearer. Chemical exposure may affect future chemical and flame resistant properties. Careful consideration should be taken to replace the effected garment in accordance with the user's standard safety protocol.

\*see reverse side for a listing of chemicals

# AATCC 193 TEST METHOD

A modified AATCC 193 test method is used to quantify the chemical splash resistance. The method uses an A through D rating scale to rate the interaction of water and water/alcohol mixtures with the fabric surface. In the test, the fabric is held on a flat surface and the test droplet is placed on the fabric. A rating is assigned after ten seconds. An "A" rating corresponds to no interaction with the fabric while a "D" rating designates complete wicking of the solvent across and through the fabric. Ratings "B" and "C" are intermediate designations. See the figure below for examples of each rating.



**"A" and "B" ratings indicate that the fabric would possess a resistance to penetration following inadvertent chemical splash.**

There are countless liquid chemicals and combinations thereof that could be tested and rated according to the above method. A finite list of challenge chemicals was selected including those from the ASTM F1001-12 method. These challenge chemicals are designed to represent a broad range of chemical classes, hazards, and physical characteristics and although they have been tested, do not represent a complete list of chemicals that are used in a laboratory environment.

		Westex® ShieldTEC	Other FR Fabric**	
The following ratings were recorded:		4.5oz/yd <sup>2</sup>	6oz/yd <sup>2</sup>	6oz/yd <sup>2</sup>
Corrosive Liquids Ethyl Acetate*	98% Sulfuric Acid* 37% Hydrochloric Acid 40% Hydrofluoric Acid 50% Sodium Hydroxide*	A A A A	A A A A	D D D D
Strong Oxidizers & Corrosive Liquids	70% Nitric Acid Piranha Solution 50% Hydrogen Peroxide	A B A	A B A	D D D
Polar Organic Solvents	Acetonitrile* Carbon Disulfide* Dimethylformamide* DMSO Nitrobenzene* Tetrachloroethylene* Methanol* Ethanol i-Propanol	A A A A A A B A	A A A A A A B A	D D D D D D D D
Non-Polar Organic Solvents	n-Heptane n-Hexane* Acetone* Dichloromethane* Diethylamine* Tetrahydrofuran* Toluene* Ethyl Acetate*	C D D D D D D D	C D D D D D D D	D D D D D D D D

The fabric ratings in the above chart represent fabric as produced (without laundering)

\* Included on ASTM F1001-12 list of liquid challenge chemicals    \*\*FR fabric tested was standard Nomex IIIA (without shieldTEC technology)

**Milliken**™

These fabrics are innovative, flame and inadvertent chemical splash resistant materials intended to be used in garments that supplement personal protective equipment. The materials are engineered to self-extinguish when the source of ignition is removed and to repel small quantities of liquids following a splash from a wide variety of liquids onto the garment, thus limiting the exposure to the wearer. They may be used as a layer of, but are not intended for use as the primary protection in, firefighting garments or other products subject to repeated or extended exposure to heat or flame (unless explicitly certified in writing to meet the relevant regulations for use in such firefighting garments) or as primary protection against large amounts of liquid chemicals, toxic or corrosive gases, and/or chemical mixtures under pressure. As each customer's use of our product may be different, information provided, including without limitation, recommendations, test results, samples, care/labeling/processing instructions or marketing advice, is given in good faith but without warranty and without accepting any responsibility/liability. Do not launder with bleach or fabric softeners. Each customer must test and be responsible for its own specific use, further processing, labeling, marketing, etc. All sales are exclusively subject to our standard terms of sale posted at [www.milliken.com/terms](http://www.milliken.com/terms) (all additional/different terms are rejected) unless explicitly agreed otherwise in a signed writing.