

**INDURA<sup>®</sup>**

*Ultra Soft<sup>®</sup>*

**Flame Resistant Fabrics**

*with*

**EPIC<sup>™</sup>**

By Nextec

**Outsmart the outdoors.<sup>®</sup>**



**INDURA**  
Ultra Soft

with

**EPIC**

By Nextec

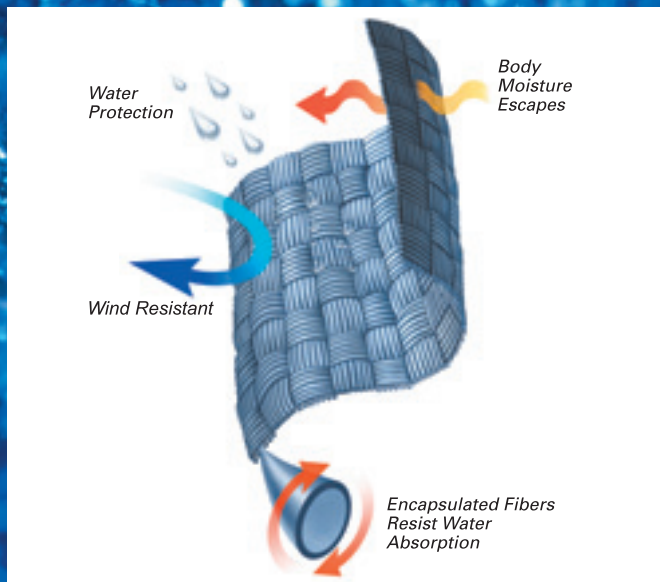
**Guaranteed Flame Resistance  
for the Life of the Garment.**

**Electric Arc and  
Flash Fire Protection.**

**Water & Wind Resistant.**

**Breathable.**

**Washable.**



## A Revolutionary All-Weather “Soft Shell” Flame Resistant Fabric

### What is INDURA Ultra Soft with EPIC by Nextec?

It's a new breakthrough “soft shell” 88% cotton 12% high tenacity nylon, flame resistant, water resistant, wind resistant, breathable and washable fabric for use in all but the most severe outdoor conditions, making it a more useful, functional garment than laminated or coated “hard shell” garments.

### How does the EPIC technology work?

EPIC is a proprietary and patented technology by Nextec Applications, which encapsulates fabric fibers with a micro-thin polymer creating a breathable barrier inside the fabric. Tiny “micro holes” between the encapsulated fibers allow water vapor to escape without allowing outside water and wind to penetrate, in all but the most severe conditions.

### What is the difference between “soft shell” and “hard shell”?

“Soft shell” technology is a new category in outdoor performance clothing. Soft shell garments provide comfortable, breathable protection that can take you from sunshine to showers to snow flurries and back. “Hard shell” garments are produced with fabrics that have been coated or laminated and are typically seam sealed. Hard shell garments are considered to be waterproof and can perform during a hurricane, monsoon or torrential downpour but poor breathability & comfort make it less than an ideal choice under more typical outdoor conditions.

### Does INDURA Ultra Soft with EPIC provide protection from electric arc and flash fire exposures?

Yes. The fabrics have been independently tested at Kinectrics to electric arc exposures and at the University of Alberta to flash fire exposures. The results are listed on the back of the brochure.

### Can INDURA Ultra Soft with EPIC be washed?

Yes. The EPIC water-resistant characteristics will be sustained even after 50 home launderings. Because the base fabric is INDURA Ultra Soft, the flame resistance is guaranteed for the life of the garment. Please contact Westex for detailed laundering instructions.

### Does INDURA Ultra Soft with EPIC meet industry standards for flame resistant clothing?

Yes, it meets the requirements of OSHA 1910.269, ASTM 1506, NFPA 70E, 2112 and 1977.

### Who will benefit from INDURA Ultra Soft with EPIC?

Any outdoor workers that require flame resistant protection and all-weather performance, such as electric & gas utilities, electrical contractors, oil, petrochemical, wildland firefighters, military and many more.



**INDURA**

*Ultra Soft*

with

**EPIC**

By Nextec



**Style 302 Twill**  
**8 oz. (271 g/m<sup>2</sup>)**  
**88% Cotton**  
**12% High Tenacity**  
**Nylon**

**Style 452 Twill**  
**10 oz. (339 g/m<sup>2</sup>)**  
**88% Cotton**  
**12% High Tenacity**  
**Nylon**

**Style 962 DUCK**  
**12 oz. (406 g/m<sup>2</sup>)**  
**88% Cotton**  
**12% High Tenacity**  
**Nylon**



# ELECTRIC ARC EXPOSURE ANALYSIS

## SINGLE LAYER FABRIC SYSTEMS

Fabric	Weight*	ATPV**	HAF***
	oz./yd <sup>2</sup> (g/m <sup>2</sup> )	(cal/cm <sup>2</sup> )	%
INDURA Ultra Soft with EPIC Style 302	9.0 (305)	10.7	79
INDURA Ultra Soft with EPIC Style 452	10.9 (370)	16.4	84
INDURA Ultra Soft with EPIC Style 962	12.6 (427)	14.9	83

*Electric arc testing conducted at the independent laboratories of Kinectrics Inc.*

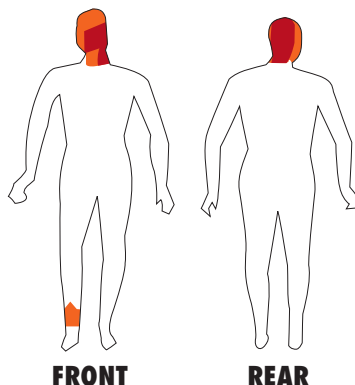
\*Weight is reported for fabric that has been laundered per ASTM F1959.

\*\*ATPV equals Arc Thermal Performance Value. The higher the value, the more insulated one is from second degree burn.

\*\*\*HAF equals Heat Attenuation Factor. The higher the HAF % the more heat is blocked by the fabric.

## FLASH FIRE EXPOSURE ANALYSIS

### INDURA Ultra Soft with EPIC Style 452



FRONT

REAR

THE UNIVERSITY OF ALBERTA  
DEPARTMENT OF HUMAN ECOLOGY

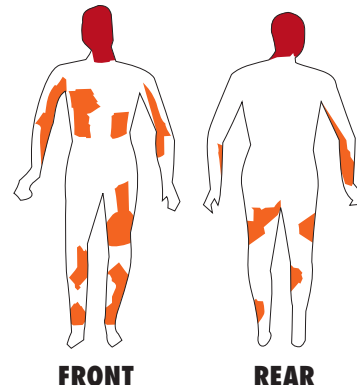
**Fire Protective Clothing  
Evaluation System  
INDURA Ultra Soft with EPIC  
Style 452 376 g/m<sup>2</sup> Coverall  
9-10-2002**

Exposure.....80.0 kW/m<sup>2</sup> (1.9 Cal/cm<sup>2</sup> sec.)  
Exposure Time .....3.0 sec.  
Time of Plot .....60.0 sec.

◆ 2nd Degree Burn .....3.75%  
◆ 3rd Degree Burn .....5.15%

**TOTAL BURN .....8.90%**  
**BURN NUMBER.....2390**

### INDURA Ultra Soft with EPIC Style 302



FRONT

REAR

THE UNIVERSITY OF ALBERTA  
DEPARTMENT OF HUMAN ECOLOGY

**Fire Protective Clothing  
Evaluation System  
INDURA Ultra Soft with EPIC  
Style 302 312 g/m<sup>2</sup> Coverall  
9-10-2002**

Exposure.....80.0 kW/m<sup>2</sup> (1.9 Cal/cm<sup>2</sup> sec.)  
Exposure Time .....3.0 sec.  
Time of Plot .....60.0 sec.

◆ 2nd Degree Burn .....18.70%  
◆ 3rd Degree Burn .....8.30%

**TOTAL BURN .....27.00%**  
**BURN NUMBER.....2378**

*Note: 88% is the maximum possible since the hands and feet are excluded. All figures include 7% for the head.*

**INDURA**  
Ultra Soft

with

**EPIC**

By Nextec

The information in this brochure is based on testing conducted by or conducted on behalf of Westex and represents our analysis of the test results. It is not intended to substitute for any testing that may be unique and necessary for your facility for you to determine the suitability of our products for your particular purpose. Since we cannot anticipate all variations in end-user conditions, Westex makes no warranties and assumes no liability whatsoever in connection with any use of this information. All test results reported are based on standard laboratory tests related to exposure to arcs, flames and heat. The results reported should not be used to predict garment performance in actual fire situations. Consult with the fabric supplier, garment manufacturer and launderer for recommendations of proper cleaning techniques.

INDURA Ultra Soft is a registered trademark of Westex Inc.

"EPIC by Nextec" and "Outsmart the outdoors" are registered trademarks of Nextec Applications.

WSI 5M0403

2845 West 48th Place • Chicago, IL 60632 U.S.A.  
Toll Free: 866-4-WESTEX (866-493-7839)  
773-523-7000 • Fax: 773-523-0965

[www.westexinc.com](http://www.westexinc.com)

**WESTEX INC.**  
A WORLD LEADER IN FLAME RESISTANT FABRICS