

CARBON

X

ULTIMATE BASELAYER

"MY HUSBAND WAS AT WORK IN A STEEL MILL, ON A BOBCAT PUSHING HOT SLAG. HOT MET COLD AND MOLTEN SLAG EXPLODED ALL OVER HIS BODY. THE STEEL MELTED THE SAFETY BELT ON THE BOBCAT, [SO] HE COULDN'T FREE HIMSELF. HE WAS WEARING THE NORMAL STEEL MILL GREENS, BUT HE HAD WORN HIS CARBONX UNDERWEAR THAT NIGHT DUE TO THE COLD EVENING. THE GREENS HE WAS WEARING BURNT OFF OF HIM ALMOST COMPLETELY. THE CARBONX HOOD AND UNDERWEAR HE HAD ON SAVED HIS LIFE."

—WIFE OF STEEL MILL ACCIDENT VICTIM



THE CARBONX ULTIMATE BASELAYER—THE ONLY CHOICE WHEN SAFETY MATTERS MOST

Flame-resistant (FR) undergarments play an essential role in protecting wearers against serious burn injuries and more common nuisance burns. In dangerous situations, having this base layer of defense close to the skin may buy the wearer critical time to escape without severe or life-threatening injuries.

The CarbonX® Ultimate™ Baselayer provides the highest level of protection for professionals working in extreme conditions where safety matters most. It is made from our DJ-77 black fabric, a double jersey interlock knit comprised of a proprietary blend of high-performance fibers.

Constructed to be truly non-flammable, our Ultimate Baselayer delivers:

Unmatched Protection: It will not burn, melt, or ignite, and significantly outperforms competing FR products when subjected to direct flame, extreme heat, molten metal, hot/flammable liquids and chemicals, or arc flash. Even after intense exposure, our baselayer maintains its strength and integrity and continues to protect. It also limits heat transfer much more effectively than FR apparel of similar weight.

Comfortable Protection: Our Ultimate Baselayer is lightweight, soft-to-the-touch, flexible, and odor resistant. It also breathes well, wicks away moisture, and dries quickly, enhancing the wearer's comfort and productivity.

Permanent Protection: Because our Ultimate Baselayer is inherently flame resistant, its thermal protective properties will not wash out or wear away. It can be worn daily as part of a total personal protective equipment (PPE) solution, providing significant value to users. (Apparel that is torn or damaged should be removed from service.)

CarbonX Ultimate Baselayer solutions include: hoods, long- and short-sleeve tops, long-sleeve hooded tops, removable sleeves, full-length and boxer-length bottoms, gloves, and socks.



ULTIMATE BASELAYER
SOLUTIONS THAT
COVER HEAD TO TOE

SETTING A NEW STANDARD IN FR PROTECTIVE APPAREL

CARBON



While competitors work to ensure their products *meet* industry standards, our goal is to *exceed* those standards and go above the norm in providing a persistent thermal barrier with minimal heat conductivity. CarbonX fabrics and apparel offer protection far beyond the industry's "No Melt, No Drip" requirements, which typically only require that protective fabrics not **contribute** to burns in a thermal exposure (as opposed to actually **protecting** the wearer from a thermal event).

CARBONX ULTIMATE BASELAYER

FABRIC PROPERTIES

TOTAL WEIGHT (OZ/YD²) 8.0 OZ

NFPA 70E HAZARD RISK CATEGORY 2

AFTER FLAME

CARBONX DJ-77	None/0 seconds
ASTM F1506	2 seconds or less
NFPA 1971 (2007)	2 seconds or less
NFPA 1975 (2009)	2 seconds or less
NFPA 1977 (2005)	2 seconds or less
NFPA 2112 (2007)	2 seconds or less

CHAR LENGTH

CARBONX DJ-77	10.16 mm (0.40")
ASTM F1506	6" or less
NFPA 1975 (2009)	6" or less
NFPA 1977 (2005)	4" or less
NFPA 2112 (2007)	4" or less

THERMAL PROTECTIVE PERFORMANCE (TPP) ATPV

CARBONX DJ-77	13.0	CARBONX DJ-77	12.3
ASTM F1506	3.0 (spaced TPP of 6.0)	NFPA 70E HRC 2	8.0

ASTM F1506: Standard performance specification for FR textiles in apparel worn by electrical workers exposed to momentary electric arc and related thermal hazards.

NFPA 1971 (2007): Standard on protective ensembles for structural firefighting and proximity firefighting.

NFPA 1975 (2009): Standard on station/work uniforms for emergency services.

NFPA 1977 (2005): Standard on protective clothing and equipment for wildland firefighting.

NFPA 2112 (2007): Standard on FR garments for protection of industrial personnel against flash fire.

Thermal Protective Performance (TPP): The TPP score is simply two-times the number of seconds it takes for a second-degree burn to occur when exposed to a 2.0 cal/cm² flame. The higher the TPP rating, the higher the level of protection.

ATPV: ATPV is defined in the ASTM F1959-99 standard arc test method for FR fabrics as the incident energy that would cause the onset of a second-degree burn (1.2 cal/cm²).

DEMONSTRABLY SUPERIOR

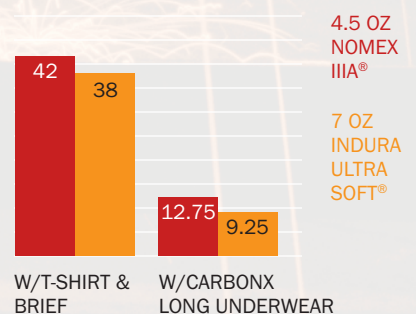
CarbonX partners with leading safety manufacturers and distributors to deliver customized, non-flammable PPE solutions for the world's most hazardous environments. Our highly protective, patented fiber blend enables our products to be optimized for performance against a wide variety of risks and hazards, including direct flame, extreme heat, molten metal, hot/flammable liquids and chemicals, petrochemicals, and arc flash.

Available in knits, wovens, and non-wovens, CarbonX is used in protective applications for industrial safety, construction, welding, molten metal, utilities, oil and gas, fire-fighting, motorsports, and tactical/police. When confronting these dangerous conditions, professionals and enthusiasts can rely on CarbonX to provide them with the protection they deserve.

REDUCE BURN INJURIES BY AS MUCH AS 75%

Testing on thermal manikins shows that wearing the CarbonX Ultimate Baselayer with Nomex or Indura coversalls reduces burn injuries by 75%.

PREDICTED BODY BURN (%) AT THREE-SECOND FLASH FIRE EXPOSURE



FOR MORE INFORMATION ABOUT CARBONX FABRICS AND APPAREL, CALL 801-415-0025 OR VISIT WWW.CARBONX.COM.