

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 injuries and could mean the difference between life and death.

Constructed using advanced patented technology, the CarbonX® Ultimate™ Baselayer provides the highest level of protection for professionals working in extreme conditions when 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.

Inherently flame resistant, our Ultimate Baselayer delivers:

Unmatched Protection: Will not burn, melt, or ignite, and significantly outperforms other FR options when subjected to direct flame, extreme heat, molten metal, hot/flammable liquids, 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 other FR apparel of similar weight.

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

Permanent Protection: Because our Ultimate Baselayer is inherently flame resistant, laundering does not impact its protective properties. The thermal protection 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.

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 BASE LAYER

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 PROTECTION 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 fire fighting and proximity fire fighting.

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

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

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

Thermal Protection 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

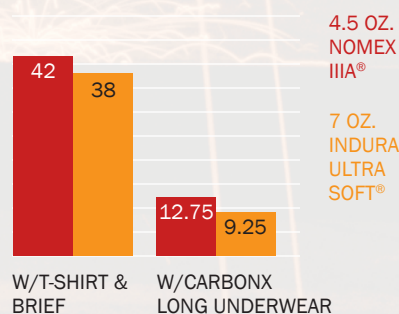
CarbonX fabrics and apparel deliver better ounce-for-ounce protection against direct flame, molten metal, hot/flammable liquids, arc flash, and extreme heat than competitive products. Every day, professionals and enthusiasts who work and play in some of the world's most hazardous environments rely on CarbonX to provide them with the protection they deserve.

CarbonX partners with leading safety manufacturers and distributors worldwide to deliver customized FR solutions. Available in knits, wovens, and nonwovens, CarbonX fabrics are found in a wide variety of protective applications, including: racing suits, baselayer garments, helmet liners, and driving gloves for motorsports; turnout gear, station wear, and balaclavas for firefighters; and jackets, coveralls, pants, shirts, and socks for industrial and utility workers.

REDUCE BURN INJURIES BY AS MUCH AS 75%

Testing on thermal manikins shows that wearing the CarbonX Ultimate Baselayer with Nomex or Indura coveralls 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.