## **CARBON**

ACTIVE BASELAYER

PROFESSIONALS CONFRONTING HEAT AND FLAME ON A DAILY BASIS SHOULD NOT HAVE TO SACRIFICE COMFORT IN THEIR WORK WEAR TO GET THE PROTECTION THEY DESERVE. BUT COMFORT-DRIVEN, FLAME-RESISTANT (FR) APPAREL HAS NOT HISTORICALLY OFFERED ENOUGH PROTECTION TO BE SERIOUSLY CONSIDERED FOR USE IN HAZARDOUS ENVIRONMENTS.

THE CARBONX® ACTIVE™ BASELAYER IS
THE EXCEPTION. UNLIKE COMPETING
PROTECTIVE APPAREL, OUR ACTIVE BASELAYER COMBINES A HIGH LEVEL OF PROTECTION WITH MAXIMUM COMFORT. IN
FACT, THE CARBONX ACTIVE BASELAYER IS
RATED NFPA 70E HAZARD RISK CATEGORY
2 FOR ITS EXTRAORDINARY PROTECTIVE
PROPERTIES WHILE MOST COMPETITORS'
GARMENTS OF A SIMILAR WEIGHT FALL
INTO CATEGORY 1.

THE CARBONX ACTIVE BASELAYER—THE SOLUTION FOR BALANCING PROTECTION AND COMFORT

The CarbonX Active Baselayer is the ideal solution for active wearers who want to keep comfortable even in potentially dangerous conditions. It is made from our TK-60 fabric, a lightweight, double jersey interlock knit comprised of a proprietary blend of high-performance fibers, including a hydrophilic fiber designed to absorb and wick away moisture.

Constructed to be truly non-flammable, our Active 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 Active 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 Active 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 Active Baselayer solutions include: hoods, long- and short-sleeve tops, long-sleeve hooded tops, removable sleeves, full-length and boxer-length bottoms, gloves, and socks. Available in gray or dark blue.







# SETTING A NEW STANDARD IN FR PROTECTIVE APPAREL



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).

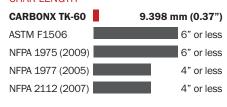
CARBONX ACTIVE BASELAYER FABRIC PROPERTIES

TOTAL WEIGHT (OZ/YD²) 6.0 OZ NFPA 70E HAZARD RISK CATEGORY 2

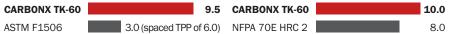
#### AFTER FLAME

CARBONX TK-60	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



#### THERMAL PROTECTIVE PERFORMANCE (TPP) ATP



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.

 $\label{eq:NFPA 1977 (2005): Standard on protective clothing and equipment for wildland firefighting. \\$ 

 $\label{eq:heaviside} \textit{NFPA 2112 (2007): Standard on FR garments for protection of industrial personnel against flash fire.}$ 

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  $2.0 \text{ cal/cm}^2$  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.

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



