

CARBON



by TEXTECH

AN ARC FLASH EXPLOSION PRODUCES INTENSE ENERGY THAT CAN SUPER-HEAT THE SURROUNDING AIR TO 35,000 °F IN LESS THAN A SECOND. ELECTRICAL WORKERS MUST WEAR PPE THAT IS RATED TO CORRESPOND TO THE RISK LEVEL OF ELECTRICAL HAZARD THAT THEY ARE WORKING WITH AND THAT OFFERS SUFFICIENT PROTECTION AGAINST A POTENTIAL ARC FLASH EXPLOSION.

FIREFIGHTERS, RACE CAR DRIVERS, STEELWORKERS, AND OTHER PROFESSIONALS WHO ROUTINELY FACE THERMAL HAZARDS IN EXTREME CONDITIONS HAVE COME TO RELY ON CARBONX TO PROVIDE MAXIMUM PROTECTION AND ENHANCED COMFORT IN LIGHTWEIGHT, TRULY NON-FLAMMABLE PPE. CARBONX NOW OFFERS THIS SAME LEVEL OF PERFORMANCE IN A FABRIC AND GARMENT SPECIFICALLY DESIGNED FOR ARC FLASH HAZARDS—CARBONX ARC.

*CarbonX Arc solutions include:
arc flash-rated shirts,
long-sleeve baselayer tops,
and full-length baselayer
bottoms. Available in blue.*

ARC BASELAYER AND FABRIC

CARBONX-LEVEL PROTECTION AGAINST ARC FLASH HAZARDS

CarbonX® Arc™ combines our brand's signature non-flammable protective properties with maximum comfort in defending against arc flash hazards. At 5.0 oz, CarbonX Arc is one of the lightest-weight Hazard Risk Category 2 protective fabrics on the market. Engineered for NFPA 70E compliance, CarbonX Arc meets all of the requirements of NFPA 2112 and easily exceeds the standards of ASTM F1506 with a 9.4 ATPV rating and a 10.7 TPP rating.

CarbonX Arc is constructed of a patented, truly non-flammable, high-performance fiber blend that is optimized to protect against arc flash hazards as well as direct flame and extreme heat.

CarbonX Arc delivers:

Unmatched Protection: Like all CarbonX fabrics, it will not burn, melt, or ignite, and significantly outperforms competing FR products when subjected to arc flash, direct flame, and extreme heat. Even after intense exposure, CarbonX Arc 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: CarbonX Arc 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 CarbonX Arc is inherently flame resistant, its thermal protective properties will not wash out or wear away. CarbonX Arc apparel is machine washable, easy to care for, and can be worn daily as part of a total personal protective equipment (PPE) solution, providing significant value. (Apparel that is torn or damaged should be removed from service.)



SETTING A NEW STANDARD IN FR PROTECTIVE APPAREL

While competitors work to ensure their products *meet* industry standards, **our goal is to exceed these 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.

AFTER FLAME

CARBONX ARC 50	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 ARC 50	81 mm (3.19")
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)

CARBONX ARC 50	10.7
ASTM F1506	3.0 (spaced TPP of 6.0)

ATPV

CARBONX ARC 50	9.4
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).

PARTNERS IN PROTECTION

CarbonX has the advantage of being a signature brand of TexTech Industries Inc., a global market leader in providing Personal Protective Equipment (PPE) solutions and performance-driven materials since 1904. TexTech's in-house engineering, testing, and manufacturing capabilities facilitate the development of new CarbonX products to meet the requirements of a broad range of difficult and demanding protective applications for industrial safety, steel/welding, utilities, pulp and paper, oil and gas, firefighting, motorsports, construction, and tactical/police. When confronting 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 801-415-0023 OR VISIT WWW.CARBONX.COM.

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by **TEXTTECH**

CARBONX ARC BASELAYER

FABRIC PROPERTIES

TOTAL WEIGHT (OZ/YD ²)	5.0 OZ
NFPA 70E HAZARD RISK CATEGORY	2

A 6.0 OZ CARBONX ARC FABRIC IS ALSO AVAILABLE.

TEXTTECH
INDUSTRIES