I'M A WILDLAND FIREFIGHTER

My face & lungs need protection in my line of work
I was tired of choking on ash & smoke and getting peppered with burning embers
I GOT THE BEST...I GOT A HOT SHIELD!

HOT SHIELD USA

MAKERS OF THE BEST FACE MASKS & HELMET SHROUDS ON THE PLANET

WE CREATED A NEW STANDARD

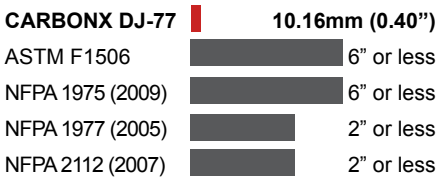
FOR PROTECTING THE FACE & LUNGS OF WILDLAND FIREFIGHTERS

As the inventors of Hot Shield and firefighters ourselves, we knew that nothing available was doing enough to protect our face and lungs from wildland smoke & flame. Back in 1993, we decided to do something about the issue and invented the Hot Shield Wildland Firefighter Face Mask. We improved it steadily since then and the Hot Shield remains the best protection for your face, bar none. Some companies may try to sell you a “bean bag” squishy filter mask or a neoprene bandanna. We are firefighters who will not compromise on quality of materials and our design is uniquely different and US Patented. We exclusively use CarbonX® the most inherently thermally resistant fabric in the world. See the proof below for yourself!

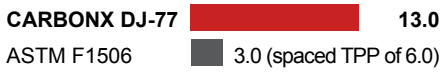
AFTER FLAME

CARBONX DJ-77	None / 0 seconds
ASTM F1506	2 seconds or less
NFPA 1971 (2007)	2 seconds or less
NFPA 1971 (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)



ATPV (cal/cm²)

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(2006): Standards on protective clothing and equipment for wildland firefighting.

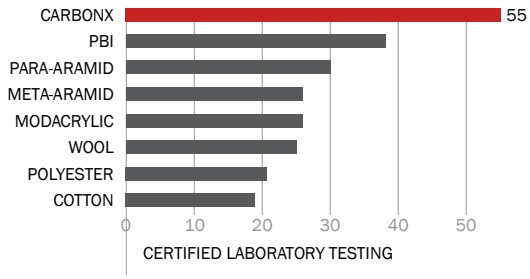
NFPA 2112(2007): Standard on FR garments for protection of industrial personnel against flash fire.

THERMAL PROTECTION PERFORMANCE (TPP): A TPP score/scoring is simply 2x the number of seconds it takes for a 2nd degree burn to occur when exposed to a 2.0cal/cm2 flame. The higher the TPP rating, the higher the level of protection.

ATPV: defined in the ASTMM F1959-99 standard and test method for FR fabrics as the incident energy that would cause the onset of a 2nd degree burn (1.2 cal/cm2).

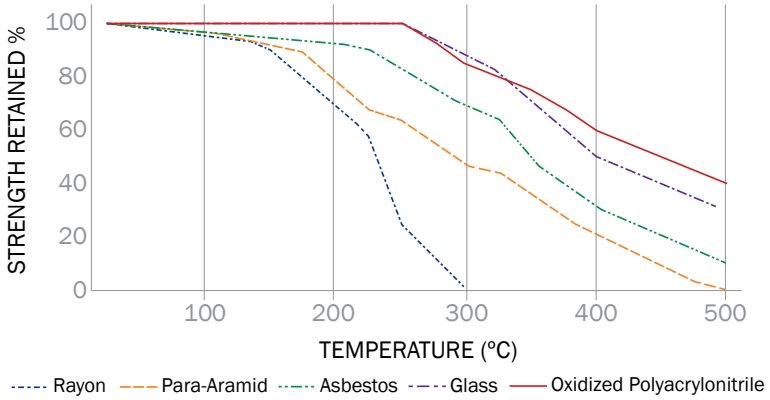
LIMITING OXYGEN INDEX

The Limiting Oxygen Index measures the amount of oxygen required in the environment for a fabric to support combustion. Any material with a LOI less than 20.95 (the oxygen volume of air) will burn in air. The CarbonX patented fiber blend has a LOI rating of 55, indicating it requires an oxygen level of nearly three times that of air to burn. When exposed to intense heat or flame, CabonX fibers carbonize and then expand, eliminating any oxygen content within the fabric.



STRENGTH RETENTION

After intense exposure to 250° C heat, the CarbonX fiber blend possesses 100 percent of its original strength. Turning up the heat to 500° C, the CarbonX fiber blend retains an astonishing 40 percent of its strength, even after 10 minutes of exposure.



FREQUENTLY ASKED QUESTIONS ABOUT THE HOT SHIELD PRODUCTS

Q: WHAT IS THE HOT SHIELD? IS THERE MORE THAN ONE?
A: When people say "Hot Shield", they usually mean the HS-2 model, the most popular and best selling model. However, we make several different models of facial protection. The most popular is The HS-2 is the worlds first patented (U.S. Patents # 5,628,308 & 5,823,188) dual function, multiple layer face protector mask designed by firefighters specifically for wildland firefighting operations. The HS-2 Wildland Firefighter Face mask is the only device we know of that has been proven to protect major portions of the face & neck from burning embers, sparks and even the direct flames of a 1000 degree Fahrenheit blowtorch. Its second most important function is to provide a measure of protection to the respiratory tract of the firefighter by use of a combination of physical barriers. Our UB-V2 Ultimate Bandanna has no accommodation for a N-95 filter or other and was designed specifically for those firefighters who simply want burn protection but no fine particulate protection. Our Ultra Shroud Extreme is an extremely thermally resistant replacement helmet shroud that can be attached to nearly any helmet with the included packet of accessory straps. It is the only shroud we know of that allows the firefighter to breathe directly through the shroud's mesh overlap, offering some measure of particulate protection while still offering high heat protection. The HS-4 model is designed specifically and only for use with the Sundstrom SR-100 half face canister style respirator in a similar fashion to the HS-2 design. The HS-5 does the same around the Draeger Xplore 3500 half face respirator. Both offer protection to the firefighters face AND the respirator itself.

Q: WHY DO FIREFIGHTERS NEED THIS KIND OF PROTECTION?
A: Other devices, masks and standard issue helmet shrouds have proven to be inadequate against the flame, heat and smoke of wildland fires. The choice of poor PPE often results in inadequate air exchange, burned noses from shrouds that creep down and expose the nose, bandannas catching on fire, coughing up black phlegm for days after a fire, inflamed & irritated respiratory tracts from inhaling smoke & ash common to ALL outdoor fires. In addition, many firefighters have been overrun by fast moving fires and have sustained severe burns to the face, neck and ears. Burns which are impossible and often extremely difficult to recover from.

Q: HOW DOES THE HOT SHIELD FACE MASKS & HOUSINGS PROTECT ME FROM BURNING EMBERS, RADIANT HEAT & FLAME?
A: First, our products radically reduce the risk of burns to your face through the use of highly thermally resistant materials and our patented design that utilizes the proven science of insulating air space. The outer shell of every Hot Shield mask, shroud or respirator housing is made of super tough & extreme fire resistant CarbonX fabric which does not burn, ignite, char, shrink or decompose at temperatures reaching and exceeding 2000 degrees Fahrenheit, even for extended periods of time. CarbonX accomplishes this with less weight than traditional PPE materials. The HS-2 has saved the lives of at least 4 firefighters (documented) and has become a popular and standard part of PPE for many departments and firefighters.

Q: WHY NOT BUY THE "OTHER GUYS" CHEAPER MASK?
A: The old adage "You get what you pay for" remains true. Other masks have been used to fill the void, but the materials are lacking (cotton, neoprene, polyester, etc). One mask marketed to firefighters actually Uses polyester fabric for the inner liner and a "bean bag" of polyester! (polystyrene foam beads soaked in aloe vera gel)....Would anyone in their right mind utilize polyester in firefighter PPE??

Do a little research of your own...perhaps ask your crew the following questions:
When was the last time your Fire Department "spec'ed out" polyester fabric as a liner for PPE?
Does any reputable PPE manufacturer use polyester or styrene foam beads as a vapor barrier or liner in their firefighter clothing line?
What is the melting point of polystyrene foam beads (what you find in a bean bag chair)?
What is the melting point of polyester or Indura fabric?
What happens to your lungs & throat when you inhale burning vapors of melting polyester & polystyrene foam?
Would you like to breathe through a gooey, sticky, wet, "bean bag" style filter mashed up onto your mouth & nose?
Do you have time to remove & re-install filters several times in a fire?

Q: HAS THE HOT SHIELD LINE UP BEEN INDEPENDENTLY TESTED?
A: Yes, several different tests were conducted on the original versions of the HS-2. Those versions used a less protective, although still very good combination of Nomex and Kevlar fabrics. Test #1 was performed by Biotherm Labs in Dayton Ohio. The test was the RPP (Radiant Protective Performance) Test per NFPA Standard #1977 (Wildland Clothing Standard). Test #2 was the application of a 1000 degree F blowtorch with thermocouples (thermometers) placed outside and inside the mask. After 60 seconds of flame applied to the outside of the HS-2, the inside temperature had only reached 114 degrees F!. Storm King Mountain, makers of the most protective shelter tent & fire apparatus curtain in the world performed a open field burn test that proved the HS-2 could withstand severe temperatures outside and yet inside, the world of the firefighter was indeed very survivable. Now, with the use of CarbonX (since 2001), the Hot Shield lineup of facial protection masks, housings and helmet shrouds are even more protective and lighter as well. The RPP or Radiant Protective Performance test, Standard ASTM F1939 has a NFPA requirement of 7 cal/cm2 or greater. Our fabric combination exceeded that to 11.1 cal/cm2. The TPP or Thermal Protective Performance test, Standard ISO 17492 has a NFPA #1977 - 2112 requirement of 3.0 cal / cm 2; our combination of fabrics achieved a 9.7 cal/cm2 rating. Flame resistance, Heat Shrink Resistance, Cleaning/Shrinkage Resistance all exceeded the NFPA#1977 minimums. To get a quick picture of how superior the protection level is, take a look at the charts!

Q: HOW DOES THE HOT SHIELD MASKS PROTECT MY LUNGS? ARE ANY OF THE HOT SHIELD PRODUCTS RESPIRATORS?
A: Respiratory relief is achieved differently for every model and NO, Hot Shield masks are not respirators. Each model accomplishes respiratory relief differently. The HS-2 has an integral filter pocket that accommodates any low-level N-95 dry or wet particulate filter mask. Filters are sold separately and are steam activated carbon sandwiched by cotton media These filters do not become useless after being exposed to air, unlike the gooey wet filters the "other guys" sell. The UB-V2 Ultimate Bandanna uses a double layer of CarbonX knit mesh to block large airborne ash particles. The UNI-V2 Ultra Shroud Extreme uses the same concept but in a helmet shroud. The HS-4 and HS-5 are masks/housings that fit onto & around two popular well known brands of half face cartridge style respirators (Sundstrom SR-100 & Draeger Xplore 3500), protecting both the face & the respirator itself and the specific half face respirator gives the user respiratory relief, not the Hot Shield. This allows for uniform fit testing for those industries that require and have standards for respiratory protection (unlike the wildland firefighter who still remains without regulatory agency relief from smoke & airborne particulate....sad but true. Its one of the reasons why we invented the Hot Shield).

Q: DO THE HOT SHIELD MASKS, SHROUDS & HOUSINGS PROTECT ME FROM SUPERHEATED AIR?
A: No. Only a positive pressure breathing apparatus can do that! However, in an environment like wildland firefighting operations, where a SCBA is impossible or impractical, the only remaining option is a negative pressure filtration device combined with extreme heat protection....which is exactly what our products do.....and do very well.

Q: ARE HOT SHIELD MASKS & SHROUDS COMPATIBLE WITH ALL FIRE HELMETS? CAN I USE MY CURRENT SHROUD?
A: Models HS-2 and UB-V2 are "stand-alone" masks that do not interfere with any helmet. Of course, the HS-4 & HS-5 models, combined with their respective half face respirators are completely compatible with any helmet as they are "stand-alone' (not attached to the helmet). The basic standard shroud made of Nomex based fabric typically will not wrap completely over these four models, but usually will wrap and fasten below the air exchange opening of the HS-2 and UB-V2. We highly recommend the use of our Ultra Shroud Extreme Helmet Shroud made of CarbonX, which will completely wrap around both the HS-2 and the UB-V2, still allowing air exchange due to the two layers of CarbonX knit mesh at the mouth/nose area overlap of the Ultra Shroud. Our Extreme shroud is compatible with nearly every wildland helmet made in the world and we package it with a set of fasteners to accomplish this.

Q: ARE THE HOT SHIELDS COMPATIBLE WITH GOGGLES?
A: Low profile goggles with some type of foam work best. Remember, nearly every goggle wants to occupy the real estate spanning the bridge of your nose up to your forehead. Any type of face mask will need to share this area (the bridge of your nose) as an "anchor point". We do make a replacement goggle strap that replaces your existing strap. The Blazer QuikConnect Goggle Strap has a fastek buckle (like the buckle on any backpack), so that you can put your goggles on without removing your helmet or mask. You can keep your goggles in a separate pouch or in your Web Case (we make it!) so that they stay clean and are ready for use at a moments notice.



Hot Shield Wildland Firefighter Face Protector Mask
Model HS-2
Designed by firefighters strictly for wildland/ outdoor firefighting. Constructed of multiple layers of highly thermally resistant CarbonX® brand fabrics, the model HS-2 provides dual protection benefits of both heat/flame protection and significant respiratory relief. The integral filter pocket accepts any low-level N-95 particulate respirator filter. Integral nose pinch bar for performance & comfort. Wraps around face and "velcros" behind the neck. Hangs below face on extension "hang strap" for fast deployment. Designed for intermittent use. Inexpensive filter replacement. Reflective trim for nighttime visibility. One size fits all. Packaged with 2 filters for immediate use. Lightweight, 5.8oz/162.4gm, w/ filter=6.5oz/182gm.
Around $85 retail



Hot Shield Wildland Ultimate Bandanna
Model UB-V2
The Ultimate Bandanna is a nearly 100% fire-proof, multi-layer bandanna designed for use in wildland/outdoor firefighting. Constructed of multiple layers of highly thermally resistant CarbonX® brand fabrics. No filter or filter pocket. Wraps around face and "velcros" behind the neck. Integral nose pinch bar for performance & comfort. Light, small and easily donned. Easy breathing. Reflective Trim for nighttime visibility One size fits all. Lightweight, 3.6oz/100.8gm.
Around $60 retail



Hot Shield Ultra Shroud Extreme
Model UNI-V2
The Ultra Shroud Extreme is a universal replacement helmet shroud for wildland helmets of both US and European/Australian helmet types. This face & neck protection garment completely overlaps & wraps around the face and neck, double layering your face in highly thermally resistant CarbonX® fabrics. The overlapping sections are designed with a double layer mesh in the mouth/nose area helping to provide for easier air exchange than a standard shroud, with the additional benefit of reducing inhalation of airborne particulate. A supplied customization kit allows attachment to nearly any wildland helmet in existence. Reflective Trim for nighttime visibility Lightweight, 4.5oz./126gm.
Around $55 retail



Hot Shield for the Sundstrom SR-100 Half Face Respirator
Model HS-4
The Hot Shield designed specifically to fit the Sundstrom brand, Model SR-100 Half Face Respirator. Constructed of multiple layers of highly thermally resistant CarbonX® brand fabrics. Provides a high degree of thermal protection to face & neck areas. Comfortable wear for extended periods and does not interfere with standardized respirator fit testing. Reflective trim for nighttime visibility. One size fits all. Lightweight, 3.8oz./106.4gm.
Around $88 retail



Hot Shield for the Draeger Xplore 3500 Half Face Respirator
Model HS-5
The Hot Shield designed specifically to fit the Drager brand, Model Xplore 3500 Half Face Respirator. Constructed of multiple layers of highly thermally resistant CarbonX® brand fabrics. Provides a high degree of thermal protection to face & neck areas. Does not interfere with standardized respirator fit testing. Reflective trim for nighttime visibility. One size fits all. Lightweight, 3.8oz./106.4gm..
Around $88 retail

Web Case Carry Pouch
Model WC-1
Stores any model Hot Shield when not in use, allowing for quick access when needed (similar to a SCBA facemask pouch on a turnout coat). Plenty of extra room for spare filter, goggles, etc. Made of tough Nylon Cordura 600 denier with 2 way zippers. Measures approximately 9" wide at top, 11" wide at bottom and expands to over 3" thick inside. Made in USA.

Blazer Quick Connect Replacement Goggle Strap
A nearly universal replacement goggle strap that allows goggles to donned instantly by use of a faster buckle. No more leaving goggles stretched out over helmet for long periods of time, exposed to dirt & scratches. Simply thread anchors through goggle at each end and secures with snaps. Fully adjustable. Made in USA.

HOT SHIELD USA
MAKERS OF THE BEST FACE MASKS & HELMET SHROUDS ON THE PLANET
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