



Today, technology designed to make our everyday lives easier is now making firefighting more difficult. Nowhere is this more evident than in Airport Crash and Rescue, Petrochemical and HAZMAT emergencies. Fires are burning hotter and longer, with radiant heat posing tremendous threats to first responders.

## Silver SAVES Lives.

Z-Flex® Silver™ is a revolutionary new multilayer aluminized fabric system specifically engineered to provide superior radiant protection, insulation, and durability to frontline ARFF personnel.

Z-Flex® Silver is the most advanced aluminized outer shell system ever developed — combining Newtex Industries' Multilayer Aluminization (MLA™) technology with a patented 3D Mock Knit™ high performance fabric featuring PBI flame resistant fibers.

This integrated outer shell system offers superior protection and performance for the next generation of Aluminized PPE. Z-Flex Silver is an innovative 5-layer outer shell composite that has been completely engineered to provide durable, comfortable and superior protection from high energy, radiant heat. By reflecting back the heat, Z-Flex® Silver allows close flame proximity while reducing the rate of heat absorption that can lead to thermal fatigue. For durable, comfortable and superior protection from high energy, radiant heat — specify Z-Flex® Silver.

### Anatomy of Z-Flex Silver:

#### Layer 1: Z-Flex® Aluminized Film

High purity aluminum particles reflect up to 95% of infrared radiant energy from heat, flames and hot objects.

#### Layer 2: HT Film

A high temperature barrier film that significantly reduces conductive heat transfer.

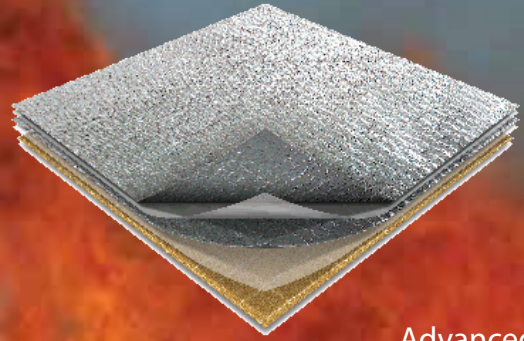
#### Layer 3: Z-Flex® Aluminized Film

A secondary layer of pure aluminum particles increases the effectiveness of the outer layer while providing added radiant reflectivity.

#### Layer 4: Proprietary Bonding System

An advanced thermo-set polymer system that delivers superior thermal performance over traditional rubber-based adhesives.

#### Layer 5: 3D Mock Knit™ Fabric



Advanced 5-Layer  
Outer Shell System





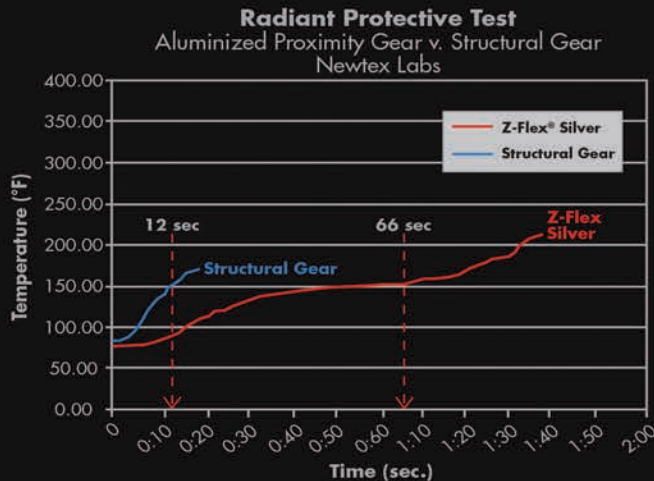


Z-Flex® Silver™ by Newtex Industries meets or exceeds current UL certifications, including NFPA 1971 requirements. The revolutionary Z-Flex Silver fabric system is available from leading fire service and industrial garment manufacturers worldwide.

	NFPA 1971 Requirements	Z-Flex® Silver	Traditional
<b>Fiber</b>		PBI/Aramid	PBI/Aramid
<b>Construction</b>		3D Mock Knit	Knit
<b>Weight</b>		7.36	7.89
<b>Radiant (RPP)</b>	> 20 sec.	67.1	66.3
<b>Flammability</b>			
After Flame (sec.)	< 2 sec.	0.0	0.0
After Glow (sec.)		27.9 x 31.5	51.3 x 41.1
Char (in.)		.35 x .35	.54 x .40
<b>Wet Flex</b>	No delam	Pass	Pass
<b>Adhesion (after Wet Flex)</b>	No delam	Pass	Pass
<b>Thermal Shrinkage</b>	<10%	0.9 x 0.5	2.0 x 0.6
<b>Stroll Flex Abrasion</b>	Cycles to Break	2978 x 4261	2838 x 2136
<b>NFPA Trap Tear</b>	>22 lbf	60.9 x 58.8	27.4 x 32.6
<b>Grab Strength</b>	>140 lbf	262.7 x 293.7	123.8 x 146.1

- Enhanced Radiant Reflectivity
- Greater Durability and Performance
- 8% Lighter, More Flexible
- Improved Comfort

Z-Flex® Silver outer shells may add up to a minute of life saving protection over basic structural PPE shells in extreme conditions.



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