



## Heat Protective Clothing



# HEAT RESISTANT CLOTHING

## Caution! Do Not Confuse Ambient, Conductive and Radiant Heat!

The following definitions are given as reference in selecting the proper clothing for heat protection.

**Ambient Heat** is surrounding atmospheric temperature in a given situation. Examples are: 65°F-70°F (18°C-21°C) in an office; 1600°C in a fire walk.

**Conductive Heat** is generated by direct contact with a hot surface. Examples are: picking up a burning block at 600°F (315°C); leaning against a furnace wall at 1000°F (537°C).

**Radiant Heat** is generated by the sun or source of fire, such as a fireplace or furnace, and is absorbed by masses of material struck by the heat's rays. This is why it is cooler in the shade on a sunny, hot day.

### EN11611:2015 Requirements

Program	Test Method	Standard Requirements	
		1 class	2class
Flame resistance performance	ISO 15025-A ISO 15025-B	The mean value of after flame time and afterglow time is less 2 seconds. No melt or molten debris, no holes and no flame to the top or the edge.	
Resistance to molten metal splash	ISO 9150	≥15drops	≥25drops
Radiation heat	ISO 6942 (20kW/m <sup>2</sup> )	RHTI 24 ≥ 7s	RHTI 24 ≥ 16s



### EN11612:2015

Program	Test Method	AHR1000	300 suits	500 suits	700 Suits
Limited flame spread	ISO 15025-A	A1	A1	A1	A1
	ISO 15025-B	A2	A2	A2	A2
Convective heat(B)	ISO 9151	B1	B1	B1	B3
Radiation heat(C)	ISO 6942(20kW/m <sup>2</sup> )	C3	C3	C4	C4
Molten aluminum splash(D)	ISO 9185	D1	D2	D3	D3
Molten iron splash(E)	ISO 9185	E3	E2	E3	E3
Contact heat(F)	ISO 12127	F2	F1	F1	F3



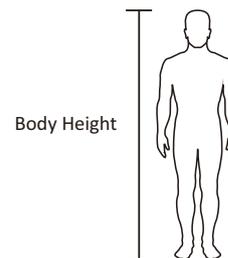
### Fabric Structure

AHR1000 Series	Outer Shell	335g/m <sup>2</sup> Aluminized aramid			
	Lining	7.7 oz/yd <sup>2</sup> FRC fabric			
300 Series	Outer Shell	Aluminized Glass	900 Series	Lining	Aluminized Glass
	Lining	None			1. Fiberglass Insulation
400 Series	Outer Shell	Kevlar Aluminized			2. AL Foil
	Lining	None			3. AL Foil
500 Series	Outer Shell	Aluminized Glass			4. Fiberglass Insulation
	Lining	Neoprene Coated Nylon		5. White Fiberglass	
700 Series	Outer Shell	Aluminized Glass			
	Lining	1. AL Foil			
		2. Fiberglass Insulation			
		3. Neoprene Coated Nylon			

### Sizes: (300、400、500、700 Series)

Please select the appropriate size for your chest, girth, and height. Selection of the correct sizes aids comfort and durability of the garment.

Garment Sizes	Body Height(cm)
XS	165-169
SM	170-174
MD	175-179
LG	180-184
XL	185-189
2X	190-200



### Sizes: (900 Series)

Model Numbers	Body Height (cm)	Body Weight(kg)
900/SS	165-175	63-75
900/R	176-185	76-95

The 900 suit is tailored to be worn with a self-contained breathing apparatus (SCBA) for protection in hostile atmospheres.



# AHR1000 SERIES HEAT RESISTANT CLOTHING



## MODEL NUMBERS:

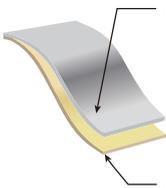
AHR1000	Suit complete		1 Suit/ Case
AHR1000BA	Suit complete, SCBA accommodation	with SCBA	1 Suit/ Case
AHR1500	Coverall complete		1 Suit/ Case
AHR1500BA	Coverall complete, SCBA accommodation	with SCBA	1 Suit/ Case

## SUIT COMPONENTS:

AHR117	Hood	
AHR120	Coat	
AHR120BA	Coat	with SCBA
AHR130	Pants	with 136RL suspenders
AHR122	Coverall	
AHR122BA	Coverall	with SCBA
AHR144-02A	Gloves	
AHR132	Chaps	

## FEBRIC STRUCTURE:

Meet the requirement of EN 11612:2015:B1 C3 D1 E3 F2



Exterior fabric: 335g/m<sup>2</sup> Aluminized aramid fabric

1. The reflection of radiant heat is more than 85%
2. The base fabric is aramid, with excellent high temperature resistant and breaking strength.

Inner fabric: 7.7oz/yd<sup>2</sup> FRC fabric, with excellent moisture absorption, feel soft and comfortable.

## FEATURE:

- Suit composition of hood, gloves, chaps, garments and package;
- Series suits are available in coverall or coats and pants styles, with or without SCBA accommodation;
- Series suits come complete with a hood with gold reflective face shield, gloves and chaps.

## KEY APPLICTIONS:

- Firefighting rescue
- Metal smelting industry
- Glass, cement and ceramic industry

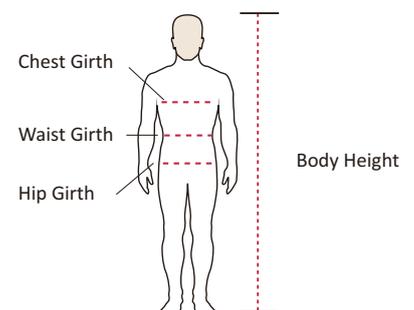
## FABRIC PERFORMANCE TEST:

AHR1000 Aluminized outer fabric	Weight	335 g/m <sup>2</sup>	
	Thickness	0.50mm	
	Breaking strength	MD	1100N
		CD	570N
	Tearing strength	MD	85N
		CD	90N
	Flame resistance	After flame time	0.7s
		After glow time	0s
		Char length	50mm
	AHR1000 fabric	EN 11612 testing result	B1 C3 D1 E3 F2

## Sizes:

COAT	SM	MD	LG	XL	2X	3X
Body height (cm)	165	170	175	180	185	190
Chest girth (cm)	121	125	129	133	137	141

PANTS	SM	MD	LG	XL	2X	3X
Body height (cm)	165	170	175	180	185	190
Waist girth (cm)	45	47	49	51	53	55
Hip girth (cm)	118	122	126	130	134	138

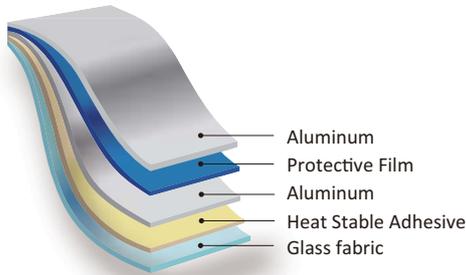


# 300/305 SERIES APPROACH



At Left, the 300 Series Approach Suit, featuring a coat and pants. Right, the 305 Series Approach Coverall.

## FEBRIC STRUCTURE:



## FEATURES

- 300/305 series suits are made of 16oz/sq.yd aluminized glass fabric which reflects 95% of radiation heat with superior durability.
- 300 /305 series suits meet the requirements of EN11611:2015 and EN11612:2015.
- 300 /305 series suits come complete with a hood with gold reflective face shield, gloves and boots.
- 300 /305 series are available in coverall or coats and pant styles, with or without SCBA accommodation.

## KEY APPLICATIONS

- Metal smelting industry
- Glass, cement and Ceramic industry
- Petrochemical industry

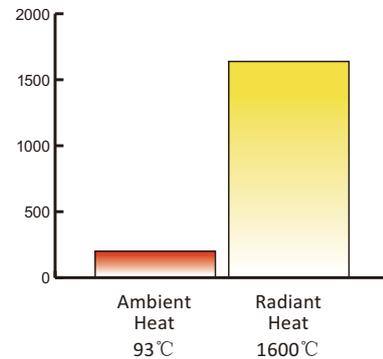
## MODEL NUMBERS

300 BA	Approach Suit complete, SCBA accommodation.	with SCBA	1 Suit/ Case
300	Approach Suit complete.		1 Suit/ Case
305 BA	Approach Coverall complete, SCBA accommodation.	with SCBA	1 Suit/ Case
305	Approach Coverall complete.		1 Suit/ Case

## SUIT COMPONENTS

310	Approach Hood	
322 BA	Approach Coverall	with SCBA
322	Approach Coverall	
320-32 BA	Approach Coat	with SCBA
320-32	Approach Coat	
330	Approach Pants	
355	Approach Boots	
344-02A	Gauntlet Glove	

## HEAT TOLERANCES



The graphs above are provided for relative comparison of radiant and ambient heat performance of Lakeland's Industrial Heat Protective Clothing. The temperatures indicated are extrapolated from laboratory tests and ARE NOT intended to indicate suitability for use at these temperatures. Individual physiology, work conditions, and the work being performed are too variable to make recommendations for use based only on temperature and exposure time.

The 300 Series Approach Suit are not to be used for fire entry.

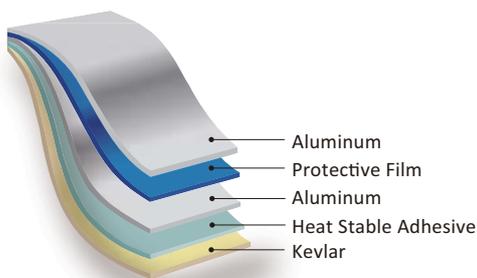
# 400/405 SERIES APPROACH



At left, the 400 Series Approach Suit, featuring a coat and pant. Right, the 405 Series Approach Coverall.

The 400/405 Series Approach Suits are not to be used for fire entry. The 400/405 Series Approach Suits are designed for personal engaged in maintenance, repair and operational tasks in areas where exposure to high radiation heat with low ambient, or molten metal splash risks.

## FEBRIC STRUCTURE:



## FEATURES

- 400/405 series suits are made of 19oz/sq.yd aluminized Kevlar fabric which reflects 95% of radiation heat with superior durability, and high performance against molten metal splash.
- 400/405 series suits come complete with a hood with gold reflective face shield, gloves and boots.
- 400/405 series are available in coverall or coats and pant styles, with or without SCBA accommodation.

## KEY APPLICATIONS

- Firefighting rescue
- Metal smelting industry
- Glass, cement and ceramic industry
- Petrochemical industry

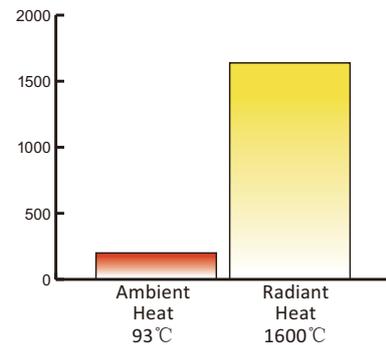
## MODEL NUMBERS

400BA	Approach Suit complete, SCBA accommodation.	with SCBA	1 Suit/ Case
400	Approach Suit complete.		1 Suit/ Case
405BA	Approach Coverall complete, SCBA accommodation.	with SCBA	1 Suit/ Case
405	Approach Coverall complete.		1 Suit/ Case

## FABRIC PERFORMANCE TEST

Weight	645g/m <sup>2</sup>
Thickness	1.14mm
EN ISO11612: 2015	A1,B1,C4,D3,E3,F1

## HEAT TOLERANCES



The graphs above are provided for relative comparison of radiant and ambient heat performance of Lakeland's Industrial Heat Protective Clothing. The temperatures indicated are extrapolated from laboratory tests and ARE NOT intended to indicate suitability for use at these temperatures. Individual physiology, work conditions, and the work being performed are too variable to make recommendations for use based only on temperature and exposure time.

The 400 Series Approach Suit are not to be used for fire entry.

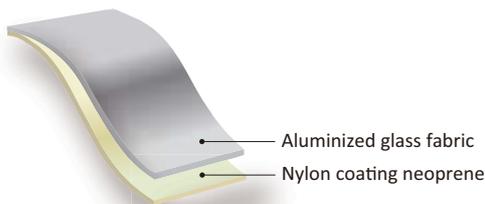
# 500/505 SERIES APPROACH



At left, the 500 Series Approach Suit, featuring a coat and pant. Right, the 505 Series Approach Coverall.

The 500 and 505 Series Approach Suits are designed for personnel engaged in maintenance, repair and operational tasks in areas of low ambient, high radiant heat. These superior protective approach suits have two layers, outer shell is aluminized glass fabric, and inner layer is nylon coating neoprene fabric for moisture/steam barrier. Therefore, 500 approach suits can be used in area where exposure to hot liquids, steam, or hot vapor.

## FEBRIC STRUCTURE:



## FEATURES

- 500 /505 series suits meet the requirements of EN11611:2015 and EN11612:2015.
- 500/505 series suits come complete with a hood with gold reflective face shield, gloves and boots.
- 500/505 series are available in coverall or coats and pant styles, with or without SCBA accommodation.

## KEY APPLICATIONS

500 and 505 Series Approach Suits are used by power plants, cement manufacturers, foundries, ceramic, glass and plastic manufacturers, chemical processing. Suits protect employees exposed to extreme radiant heat for relatively prolonged period of time.

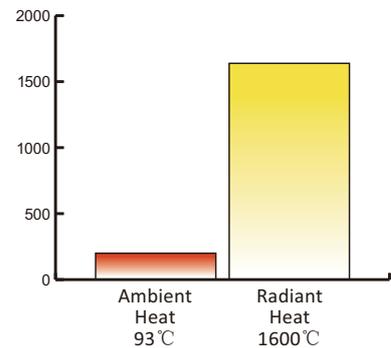
## MODEL NUMBERS

500BA	Approach Suit complete, SCBA accommodation.	with SCBA	1 Suit/ Case
500	Approach Suit complete.		1 Suit/ Case
505BA	Approach Coverall complete, SCBA accommodation.	with SCBA	1 Suit/ Case
505	Approach Coverall complete.		1 Suit/ Case

## SUIT COMPONENTS

510	Approach Hood	
522BA	Approach Coverall	with SCBA
522	Approach Coverall	
520-32BA	Approach Coat	with SCBA
520-32	Approach Coat	
530	Approach Pants	
555	Approach Boots	
344-02A	Gauntlet Glove	

## HEAT TOLERANCES



The graphs above are provided for relative comparison of radiant and ambient heat performance of Lakeland's Industrial Heat Protective Clothing. The temperatures indicated are extrapolated from laboratory tests and ARE NOT intended to indicate suitability for use at these temperatures. Individual physiology, work conditions, and the work being performed are too variable to make recommendations for use based only on temperature and exposure time.

The 500/505 Series Approach Suits are not to be used for fire entry.

# 700/705 SERIES PROXIMITY SUITS



Left, the 700 Series Proximity Suit, featuring a coat and pants. Right the 705 Series Proximity Coverall.

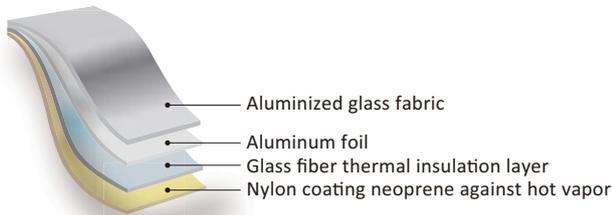
## MODEL NUMBERS

700BA	Proximity Suit complete, SCBA accommodation.	with SCBA	1 Suit/ Case
700	Proximity Suit complete.		1 Suit/ Case
705BA	Proximity Coverall complete, SCBA accommodation.	with SCBA	1 Suit/ Case
705	Proximity Coverall complete.		1 Suit/ Case

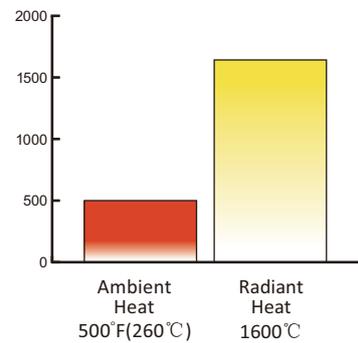
## SUIT COMPONENTS

710	Proximity Hood	
722BA	Proximity Coverall	with SCBA
722	Proximity Coverall	
720BA	Proximity Coat	with SCBA
720	Proximity Coat	
730	Proximity Pants	
755	Proximity Boots	
740	Proximity Mitts	

## FEBRIC STRUCTURE:



## HEAT TOLERANCES



## FEATURES

700 and 705 Series Proximity Suits are designed for performance of maintenance and repairs in high heat areas. Workers wearing these proximity garments are insulated from harm by Fyrepel's unique, proven multi layer construction, with the outer layer composed of high temperature Aluminized Glass. An additional moisture/steam barrier lining provides protection in areas where exposure to hot liquids, or hot vapor is a possibility. Redesigned for better fit, the 700 and 705 Series Suits are available in coverall or coat and pant styles.

The coverall or the coat and pant styles are available with an SCBA accommodation, if required. The 700 Series Suit comes complete with a hood, gold reflective faceshield, coat, pants, mitts and boots. The 705 Series Coverall comes complete with a hood with gold reflective faceshield, coverall, boots and mitts. Both series are offered in sizes Small, Medium, Large and Extra Large. Individual replacement components are available. Handy duffel/storage bags are also available.

## KEY APPLICATIONS

700 and 705 Series Proximity Suits are used by industries which bake on finishes, such as auto, office furniture, and appliance manufacturers. The Proximity Suits may also be used in oven and conveyor repair.

*The graphs above are provided for relative comparison of radiant and ambient heat performance of Lakeland's Industrial Heat Protective Clothing. The temperatures indicated are extrapolated from laboratory tests and ARE NOT intended to indicate suitability for use at these temperatures. Individual physiology, work conditions, and the work being performed are too variable to make recommendations for use based only on temperature and exposure time.*

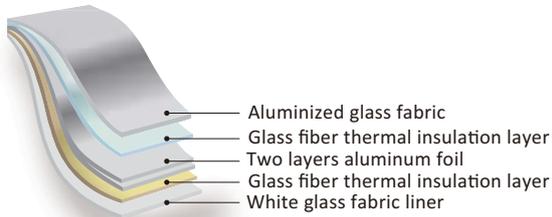
*The 700/705 Series Proximity Suits are not to be used for fire entry.*

# 900 SERIES KILN ENTRY SUIT



The 900 Series is tailored to be worn with a self-contained breathing apparatus (SCBA).

## FEBRIC STRUCTURE:



## FEATURES

This Kiln Entry suit is for workers who must function in kiln or other extreme heat situations that do not involve total flame, but require high quality heat protection. Fyrepel's unparalleled insulation capabilities make these 900 Series Suits the top choice for tough jobs, such as furnace repairs at high ambient temperatures in the steel, glass and ceramic industries, or where high pressure steam is a threat in petrochemical and chemical plants.

Fyrepel 900 Series Kiln Entry Suits put multiple layers of glass and an extra layer of aluminized glass between you and dangerous heat or non-ferrous splash. These suits are tailored to be worn with a self-contained breathing apparatus (SCBA) for protection in hostile atmospheres. Faceshield protection is provided by a multi-layered system of tempered glass and reflective gold on a heat resistant lens. The hoods have excellent lateral and vertical visibility.

The 900 Series Kiln Entry Suit comes complete with a hood, coat, pants, mitts and boots. The 900 Series Kiln Entry Suit is available in two sizes; the 900/R fits heights from 5'10" up to 6'1", with weights ranging from 170 lbs. up to 210 lbs. The 900/SS fits heights from 5'5" up to 5'9", with weights ranging from 140 lbs. to 165 lbs. Individual replacement components are available. Note: For safety precautions, two personnel should be suited to aid one another and work in relays.

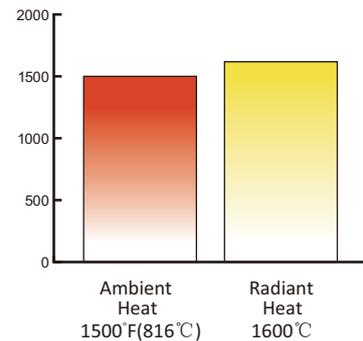
## MODEL NUMBERS

900R	Kiln Entry Suit, complete, SCBA accommodations.	1 Suit/ Case
900SS	Kiln Entry Suit, Complete SCBA accommodations.	1 Suit/ Case

## SUIT COMPONENTS

910	Kiln Entry Hood
920R	Kiln Entry Coat
930R	Kiln Entry Pants
920SS	Kiln Entry Coat
930SS	Kiln Entry Pants
955	Kiln Entry Boots
940	Kiln Entry Gauntlet

## HEAT TOLERANCES



*The graphs above are provided for relative comparison of radiant and ambient heat performance of Lakeland's Industrial Heat Protective Clothing. The temperatures indicated are extrapolated from laboratory tests and ARE NOT intended to indicate suitability for use at these temperatures. Individual physiology, work conditions, and the work being performed are too variable to make recommendations for use based only on temperature and exposure time.*

*The 900 Series Kiln Entry Suit is not to be used for fire entry.*

## ACCESSORIES



**323-42**  
Approach Apron



**325-48**  
Approach Smock

These versatile approach aprons offer superior protection against radiant heat. Non-insulated aprons are available in surgeon styles and in various lengths.



**317 Approach Hood**



**310 Approach Hood**

Perfect as replacement items for our 500 and 300 series suits or coveralls, these hoods are designed for maintenance, repair and operational tasks in areas of low ambient, high radiant heat.



**320-50 Approach Coat**



**320-32BA Approach Coat with optional SCBA accommodation**

Non-insulated approach coats are offered in both the 300 and 500 Series styles. The 500 series has the added benefit of a moisture/steam barrier lining. These coats are ideal as replacements for lost or worn suits, or as the primary protector in situations where only a coat is required.



**330 Approach Pants**



**522 Approach Coverall**

Non-insulated approach pants and overalls are available in either the 500 or 300 series. The 500 series added moisture/steam barrier provides protection from environments where exposure to hot liquids, steam or hot vapor is a possibility. The pants are offered in either a big or waist style, and are a compliment to the approach coats. The approach coveralls are offered with the option of SCBA accommodations.

## ACCESSORIES



**454 Aluminized Approach Boots**

Lakeland 454 aluminized approach boots, specially designed for the environment with high temperature, molten metal and mechanical injury risk, provide comprehensive protection. Kevlar thread in the seams which can resist high temperature. Aluminized Kevlar fabric upper which can reflect 95% of radiation heat. Good flame resistant and molten metal splash protection. Flame retardant copper zipper and velcro closure. Impact resistance and pressure toecap. Heat insulating rubber outsole with oil-resistant properties.



**355 / 555 Aluminized Approach boots**

The 300 series approach boots are noninsulated and are useful for maintenance and operational tasks in areas of low ambient, high radiant heat. The 355AG boots offer a textured anti-skid neoprene sole with a substrate of high temperature glass.



**Chaps 332**



**Spats 334**



**344-02A  
300 Series Approach Gloves**



**336-18 Aluminized Sleeves**