

# iEvac<sup>®</sup>

SMOKE/FIRE HOOD



Certified Model  
ASTM E2952

A photograph of a person wearing the iEvac smoke/fire hood. The hood is clear and covers the face, with a blue and yellow filter canister attached to the side. The person is wearing a red jacket. The background is a plain wall.

## The Only American Certified Smoke/Fire Hood

Maintenance-Free  
No Fit Test Required  
Fast & Easy to use  
Can be used with beards

The Elmridge logo, featuring a stylized 'E' made of three stacked horizontal bars.

**ELMRIDGE**



Qualified Anti-Terrorism Technology

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## The iEvac® Protects against:

- Carbon Monoxide
- Hydrogen Sulfide
- Additional Toxic Gases:  
sarin, smoke, hydrogen cyanide, chlorine, ammonia, sulfur dioxide, tear gas, OC and more.
- Harmful Particulates:  
soot, fumes, aerosols and others  
–Contains a pleated HEPA filter that removes sub-micron particles such as fentanyl, anthrax, smallpox and radioactive particles.
- Life-Threatening Physical Hazards:  
flammability and radiant heat

## Performance and Protection Capability Tests beyond the Requirements of American Standard ASTM E2952

Tested by US Army Research, Development and Engineering Command, Edgewood Chemical Biological Center

Function	Test Condition	Requirement	Result
Overall protection factor	Test subjects performing standard OSHA exercises inside the fit test chamber at Edgewood	2,000	> 90,000
Protection factor inside the hood but outside the nose cup	Test subjects performing standard OSHA exercises inside the fit test chamber at Edgewood	150	> 8,000

## Physical Properties: Tested and Certified to American Standard ASTM E2952

Challenge	Test Condition	Duration	Result
Radiant heat	Within 9.5 inches (240 mm) of heating panel between 980 and 1700°F (527 and 927°C)	15 secs repeated	pass
Flammability	9.8 inches (250 mm) away from a burner flame of 1475°F (800°C)	One rotation	pass
Molten drip	Molten polypropylene rod drip	Each location	pass
Inhalation temperature	CO at 77°F (25°C) and 87% RH	15 mins	pass
Fogging	Read eye chart from 20 feet (6.1 meters) at the 20/100 line	5 mins	pass
Field of vision	Apertometer headform	viewing	pass
Light transmission	Haze of vision area	left and right	pass
Temperature variation	32°F (0°C) followed by 158°F (70°C)	24 hours each	pass
Sealed package strength	Pressurize interior	Until pressure raised by 6.5 psi	pass
Vibration	0.75 inches (19 mm) at 100 rpm	10,000 cycles	pass
Corrosion	Salt spray at 95°F (35°C) then 72°F (22°C) at 50% RH	48 hours each	pass
Rough handling	Drop 3 ft. to concrete	Each of three faces	pass
Water leakage	Immerse in water at 160°F (70°C) to depth of 24 inches	5 mins	pass

**The iEvac® Smoke/Fire Hood has been tested by a variety of independent and government organizations and has exceeded the requirements for certification to the American National Standard.**

## Gas and Particulate Tests : Tested and Certified to American Standard ASTM E2952

Challenge	Symbol	Type	Concentration (ppm)	Requirement	Result
Carbon monoxide	CO	Hazardous combustion by-product	3,000	15 mins	> 45 mins
Carbon monoxide	CO	Hazardous combustion by-product	5,000	15 mins	> 60 mins
Hydrogen cyanide	HCN	Hazardous combustion by-product	400	15 mins	> 90 mins
Hydrogen chloride	HCl	Acid gas toxic industrial chemical	1,000	15 mins	> 70 mins
Sulfur dioxide	SO <sub>2</sub>	Acid gas toxic industrial chemical	100	15 mins	> 70 mins
Cyclohexane	C <sub>6</sub> H <sub>12</sub>	Organic vapor toxic industrial chemical	500	15 mins	> 41 mins
Diethyl phthalate	DOP	Particulate aerosol 0.185 micron	200 mg/m <sup>3</sup>	> 95%	> 99.996%

## Additional Gas and Particulate Tests

Challenge	Symbol	Type	Concentration (ppm)	Requirement	Result
Carbon monoxide	CO	Hazardous combustion by-product	10,000	15 mins	> 30 mins
Diethyl phthalate	DOP	HEPA filtration test for particulates and aerosols	200 mg/m <sup>3</sup>	> 99.97%	> 99.996%
Ammonia	NH <sub>3</sub>	Toxic industrial gas	1,250	15 mins	> 60 mins
Formaldehyde	HCHO	Toxic industrial gas	250	15 mins	> 60 mins
Phosgene	COCl <sub>2</sub>	Toxic industrial gas	125	15 mins	> 60 mins
Phosphine	PH <sub>3</sub>	Toxic industrial gas	150	15 mins	> 60 mins
Chlorine	Cl <sub>2</sub>	Toxic industrial gas	200	15 mins	> 60 mins
DMMP	DMMP	Simulant for sarin nerve gas	1,000	15 mins	> 60 mins
Tear gas	CS	Tear gas	8	> 8 hours	> 8 hours
Tear gas	CN	Tear gas	16	> 8 hours	> 8 hours
Acrolein	C <sub>3</sub> H <sub>4</sub> O	Organic vapor toxic industrial chemical	100	15 mins	> 65 mins
Hydrogen sulfide	H <sub>2</sub> S	Acid gas toxic industrial chemical	1,000	15 mins	> 600 mins
Hydrogen sulfide	H <sub>2</sub> S	Acid gas toxic industrial chemical	5,000	15 mins	> 85 mins
Hydrogen sulfide	H <sub>2</sub> S	Acid gas toxic industrial chemical	10,000	15 mins	> 40 mins
Hydrogen sulfide	H <sub>2</sub> S	Acid gas toxic industrial chemical	20,000	15 mins	> 20 mins

## Hood Performance Tests: Tested and Certified to American Standard ASTM E2952

Function	Test Condition	Duration	Requirement	Result
Total inward leakage	Test subjects performing standard exercises	2.5 mins	< 2%	< 0.01%
Ocular leakage	Test subjects performing standard exercises	2.5 mins	< 20%	< 0.1%
Carbon dioxide build-up	Breathing machine	25 cycles per min	< 2.5%	< 1.7%
Breathing resistance	Probed headform with breathing machine	30 cycles	-3.2 in (-81.5 mm) +1.2 in (+30.6 mm)	pass
Soot particulate	Inhalation breathing resistance with 200 mg/m <sup>3</sup> soot	5 mins	< 8 in (< 204 mm)	pass
Soot particulate	Exhalation breathing resistance with 200 mg/m <sup>3</sup> soot	5 mins	< 6 in (< 153 mm)	pass

- Maintenance-free
- No fit test required
- Fast & Easy to use
- At 9.5 in. (240mm) can withstand up to 1700°F (927°C) in radiant heat
- Twin filters for easier breathing
- Improved field of view compared with single filter in front
- Hood is a clear material resulting in an unobstructed field of view
- High visibility reflective strips for easy recognition
- Highest level of protection maintained by silicone neck dam
- Protects lungs, head, eyes and face
- Can be used with eyeglasses, beards and long hair
- Packaged in puncture and water-proof laminate barrier
- Quick and easy donning
- Latex-free
- One universal size



## Read instructions before using

### Weight of iEvac® in ready-to-use configuration:

1.4 lbs. – 635 grams

### Size of iEvac® folded in vacuum-sealed foil bag:

Height – 5 1/2 in (14 cm)

Width – 5 1/2 in (14 cm)

Depth – 4 3/4 in (12 cm)

### Shelf life:

5 1/2 years from date of manufacture

For one-time use only

### Ordering info:

iEvac® Smoke/Fire Hood item # E900

iEvac® Demo Hood item # E200

iEvac® Nylon Carry-pouch item # E270

iEvac® Single Wall-mounting Rack item # E305

iEvac® Wall-mounting Cabinet (holds up to 12 iEvac) # E312



iEvac® vacuum-sealed in foil bag

