

M-Series Arc Flash Rated Assembly

3M™ has evaluated a specific M-Series respiratory assembly against certain ASTM standards related to arc flash exposures. The components listed in this document have been tested to applicable safety standards including ASTM F2178 (Standard Test Method for Determining the Arc Rating and Standard Specification for Eye or Face Protective Products), ASTM F2621 (Standard Practice for Evaluating Response Characteristics of Safety Products in an Electrical Arc Exposure), and ASTM F1959 (Standard Test Method for Determining the Arc Rating of Materials for Clothing) where applicable.

NOTE

This assembly does NOT meet the requirements for NFPA 70E and should not be used where NFPA 70E is required.

3M™ has evaluated the following complete 3M M-Series Arc Flash Rated Respiratory Assembly against certain ASTM standards related to arc flash:

Component	ASTM Standard
3M™ Versaflo™ M-400 Series Respiratory Helmet Assembly	F2178
3M™ Versaflo™ M-927 Premium Visor	F2178
3M™ Versaflo™ M-Series Inner Collar M-444	F2178
3M™ Versaflo™ M-Series Leather Shroud M-449	F2178, F1959
3M™ Versaflo™ Gold Coated Tinted Over-Visor M-967N	F2178
3M™ Versaflo™ Over-Visor Frame M-961N	F2178
3M™ Versaflo™ Powered Air Purifying Respirator Unit TR-602N	F2621
3M™ Versaflo™ High Durability Belt TR-626	F2621
3M™ Versaflo™ TR-6710N High Efficiency Filter	F2621
3M™ Versaflo™ Filter Cover TR-6700FC	F2621
3M™ Versaflo™ Heavy Duty Neoprene Rubber Breathing Tube BT-40	F2621
3M™ Versaflo™ Standard Battery TR-630	F2621
3M™ Versaflo™ High Temperature Breathing Tube Cover BT-926	F2621

The following 3M™ M-Series Arc Rated Respiratory Assembly components were evaluated against **ASTM F2178 Standard Test Method for Determining the Arc Rating and Standard Specification for Eye or Face Protective Products**:

Components	ASTM F2178
M-400 Respiratory Helmet	ARLIM 8 cal/cm ²
M-927 Premium Visor	
M-444 Inner Collar	
M-449 Leather Shroud	
M-961N Over-Visor Frame	
M-967N Gold Coated Tinted Over-Visor	

The following 3M™ M-Series Arc Rated Respiratory Assembly components were evaluated against **ASTM F2621 Standard Practice for Evaluating Response Characteristics of Safety Products in an Electrical Arc Exposure**:

Components	ASTM F2621
TR-602N Motor/Blower	PASSED
TR-626 High Durability Belt	
TR-6710N High-Efficiency Filter	
TR-6700FC Filter Cover	
TR-630 Standard Battery	
BT-40 Breathing Tube	
BT-926 High Temperature Breathing Tube Cover	

The M-449 Leather Shroud material was evaluated against **ASTM F1959 Standard Test Method for Determining the Arc Rating of Materials for Clothing** and is determined to have an **Arc Rated Protective Value (ATPV)** value of 22 cal/cm².

Components	ASTM F1959
M-449 Leather Shroud	22 cal/cm ²

The M-967N Gold Coated Tinted Over Visor and the M-449 Leather Shroud will now both have an ASTM 2178-22 marking and an ARLIM 8 Cal/cm² marking.

M-449 Markings



M-967N Gold Coated Tinted Over-Visor markings

M-967 301420 Augenseite / Side of eyes! / Côté des yeux!
 4-5 3M 1 BT 9 CE 0196 2-5 3M 1 BT CE
 ANSI Z87+W5 U6 L5 R10 ASTM 2178-22 ARLIM 8 Cal/cm²

Important Notes:

It is important that all assembly and use instructions are followed for the 3M™ M-Series Helmets and the radiant heat accessories used in this assembly. During use, the visor must be fully lowered, and the shroud must be fully draped over the user's shoulders and should not be folded or tucked into clothing.

For information regarding the donning, doffing, inspection, storage, cleaning and maintenance of this assembly, please reference the entirety of this User Instructions as well as all other applicable User Instructions for all assembly components included in the 3M™ M-Series Arc Rated Respiratory Assembly.

Personal Safety Division

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occupational use only.

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