

# 3M™ High Heat Accessories for 3M™ Versaflo™ M-300 and M-400 Series Helmets

## Technical Data Sheet

### Description

The 3M™ High Heat Accessories comprise the 3M™ Radiant Heat Covers M-973/M-975, 3M™ Gold Over Visor M-967, 3M™ Over Visor Frame M-961 and 3M™ Breathing Tube Cover BT-927. These provide additional radiant heat and spark/molten metal splash protection to the 3M™ Versaflo™ M-300 and M-400 Series Helmets and 3M™ BT-Series Breathing Tubes.

### Approvals

The Radiant Heat Covers M-973/M-975 and Breathing Tube Cover BT-927 have been shown to meet the Basic Safety Requirements under Article 10 and 11 of the European Directive 89/686/EEC and are CE marked.

These products were examined at the design stage by: BTTG Testing & Certification Ltd., Unit 14 Wheel Forge Way, Trafford Park, Manchester, M17 1EH, UK (Notified Body number 0338).

The Gold Over Visor M-967 and Over Visor Frame M-961 have been shown to meet the Basic Safety Requirements under Article 10 and 11 (Infrared performance of M-967 only) of the European Directive 89/686/EEC and are CE marked.

These products were examined at the design stage by: DIN CERTCO GmbH, Alboinstr. 56 12103 Berlin (Notified Body number 0196).

### Standards

The Radiant Heat Covers M-973/M-975 and Breathing Tube Cover BT-927 meet the following performance requirements of EN ISO 11612:2015 (Protective Clothing – Clothing to protect against heat and flame).

EN ISO 11612 Code letter and classification	Heat transmission performance requirement
A1	Limited Flame Spread
B1	Convective Heat
C4	Radiant Heat
D3	Molten Aluminium Splash
E3	Molten Iron Splash



3M™ Gold Over Visor M-967



3M™ Radiant Heat Cover M-973 and 3M™ Gold Over Visor M-967

The Gold Over Visor M-967 and Over Visor Frame M-961 meet the following requirements of EN 166:2001 (Personal Eye Protection), EN 170:2002 (Personal eye-protection - Ultraviolet filters) and EN 171:2002 (Personal eye-protection - Infrared filters) where applicable:

## M-967 EN 166:2001 1 BT 9

(1 = Optical Class, BT = Medium energy impact at extremes of temperature, 9 = Molten metal splash and hot solids)

EN 170:2002 Scale Number 4-5 (Infrared filter, shade 5)

EN 171:2002 Scale Number 2-5 (Ultraviolet filter, shade 5 colour recognition may be affected)

## M-961 EN 166:2001 9 BT

(9 = Molten metal splash and hot solids, BT = Medium energy impact at extremes of temperature)

Note: The 3M™ High Heat Accessories have been shown to meet the requirements of EN 12941:1998+A2:2008 when used in combination with the 3M™ Versaflo™ M-300 and M-400 Helmets.

Note: The mass requirements of EN 12941:1998+A2:2008 are exceeded with certain combinations using the M-400 helmet. Please refer to the Technical Specification and contact 3M with any questions.

## Applications

Typical industries include:

Smelting

Foundries

Metalworking

## IMPORTANT NOTICE

The use of the 3M product described within this document assumes that the user has previous experience of this type of product and that it will be used by a 3M does not accept liability of any kind, be it direct or consequential (including, but not limited to, loss of profits, business and/or goodwill) arising from reliance upon any information herein provided by 3M. The user is responsible for determining the suitability of the products for their intended use. Nothing in this statement will be deemed to exclude or restrict 3M's liability for death or personal injury arising from its negligence.

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[www.3M.eu/safety](http://www.3M.eu/safety)

## Materials

Radiant Heat Covers (M-973/M-975/BT-927)	Pre-oxidised aramid, aluminium coating on outer surface
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Gold Over Visor M-967	Gold coated polycarbonate
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Over Visor Frame M-961	Aluminium
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## Technical Specifications

### Storage Conditions

-30°C to +50°C < 90%RH

### Shelf Life (after date of manufacture)

M-967 Gold Over Visor = 4 years

M-961 Visor Frame = 4 years

M-973 / M-975 / BT-927 = 1 year

### Weight (with BT-40 breathing tube)

M-307 fitted with M-973, BT-927, M-961 and M-967 = 1.4 kg

M-407 fitted with M-975, BT-927, M-961 and M-967 = 1.7 kg

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