

3M Science.
Applied to Life.™

Personal Safety Division

Eye Protection Catalogue 2017



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Style and protection with 3M™ Eyewear Safety Spectacles and Goggles

Style

Style is a critical factor when it comes to persuade a user to wear personal protective equipment. 3M's range of eyewear provides you with a variety of modern and stylish products to choose from.

Protection

The premium range of safety spectacles offers the highest optical class. A broad range of eyewear products include durable anti-scratch and convenient anti-fog coatings. Most of the safety spectacles and goggles by 3M provide reliable UV protection and all of them are approved to EN 166 requirements and are CE marked.

Comfort

Many of our products come with adjustable features and are produced from soft materials at contact points in order to fit you better which improves your comfort also with different face or head sizes and shapes.

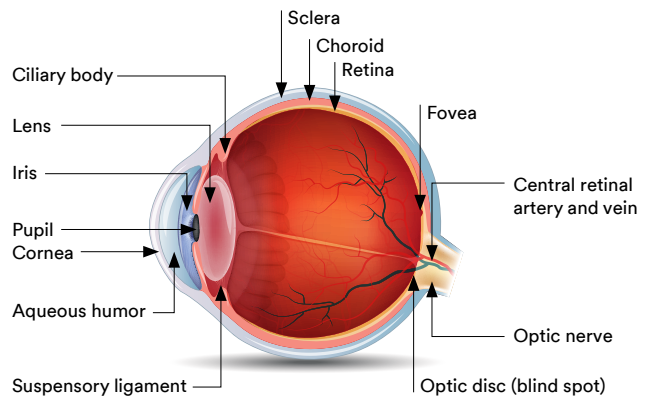
Compatibility

Eye protection often needs to be worn in conjunction with other protective equipment and it is essential that comfort and fit with other PPE is maintained. Most of the eyewear range can be used in combination with 3M respiratory and hearing protection. Compatibility with other PPE depend on many factors which requires that employer and employee select appropriate PPE together depending on individual needs.



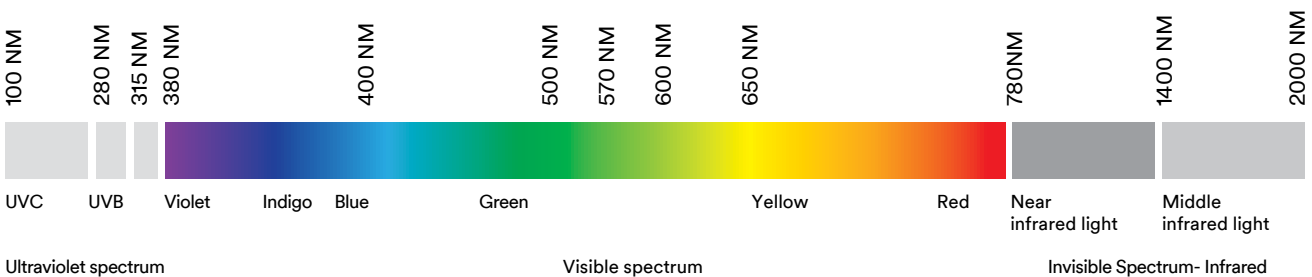
The Human eye

- **The Cornea** plays an essential role in the transmission of light rays is in direct contact with external environment. It is the human body structure with highest tactile sensibility.
- **The Pupil**, an opening in the cornea centre (specific light flux regulator), is working like a camera shutter. The diameter changes in accordance with light intensity.
- **The Lens** regulates sharpness through contraction or relaxation of the ciliary body muscle. With age these muscles lose strength which impacts near vision (presbyopia). Infrared and ultraviolet light can cause cataract which is a clouding of the lens resulting in loss of vision.
- **The Retina** is the place where all light beams converge. From here they are transmitted through the optic nerve to the brain in which an image is created. Burned retina cells cause irreversible loss of vision.



Industrial hazards of the eyes:

- **Mechanical hazards**- dust, shock, solid particles
- **Thermal hazards**- hot liquid, molten splash, flames
- **Chemical or biological hazards**- splashes of acids, solvents, alkalis, infected blood
- **Radiation hazards**- ultraviolet, infrared, visible light, laser
- **Electrical hazards**- direct contact with electric current, short-circuit electric arc



	UVC 100–280	UVB 280–315	UVA 315–380	Blue light 380–480	Visible light 380–780	Near IR 780–1400	Middle IR 1400–2000
Cornea	Conjunctivitis Partial blindness	Conjunctivitis Partial blindness	Conjunctivitis Partial blindness				
Lens		Cataract, Premature ageing	Cataract, Premature ageing			Cataract	Cataract, Partial blindness
Retina				Partial blindness, Photoreinitis	Problems with vision	Retinitis pigmentosa blindness	

Selection indicators for lenses:

Lens colour/type	Colour of limited/prevented light	Lens properties/function	Visible light transmission	Recommended use/working environment
Clear	None	Maximum amount of light passing to the eye provides good visibility and sharpness of vision	≥ 85%	Regular, everyday use
Grey, Bronze	Any	Limits brightness and sunlight reflection	10-25%	Generally to be used outside (sun glasses)
Mirror, coloured mirror	Any	Limits brightness and sunlight reflection	10-25%	Generally to be used outside (sun glasses)
Indoor/Outdoor	Any	Limits brightness and light reflection during indoor/outdoor works	50%	Tasks requiring frequent moving between indoor and outdoor environment. Loading ramps, fork lift driving, construction etc
Amber	Violet and blue	Improves contrast, enhancing vision in dull light conditions, perfect UV protection	85-92%	Suitable for inspection and in foggy and cloudy days

Supplementary information

**Aspherical lenses**

Most lenses are constructed using spherical curves (sections from a ball shape) which are of constant curvature. The human face has irregular curves which are better followed by an aspheric (non spherical) curve.

**Liquid splash or droplets**

The ventilation and coverage features give protection to the user in the event of accidental splashes or spray of hazardous liquids.

**Dust**

Careful design of ventilation features resists the penetration of large dust particles to provide protection for the user.

**Rotating tips**

The modern rotating tips made from soft materials provide a firm hold of the eyewear in place in all situations.

Coating description

The 3M's capabilities also include the premium coating technology, like Scotchgard™ or DX coatings. In our product range the following options are available:

**RAS surface**

Five times higher abrasion resistance compared to common AS surface. It provides a very strong resistance to chemical damage.

**DX surface**

An excellent coating providing an extreme protection from misting, scratching, harmful electrostatic and chemical influences.

**Anti-scratch surface AS**

Multilayer surface coating providing maximum protection from abrasion.

**Anti-fog protection AF**

This coating provides protection of lenses from fogging.

**Scotchgard**

Anti-Fog premium coating, flattening the water beads into a thin, transparent film of water that allows light to pass through

Selection indicators for lenses





3M™ Premium

3M™ SecureFit 600

NEW

3M™ SecureFit™ Protective Eyewear 600 Series comes with many options. These spectacles offer a variety of features. Workers can choose from several lens coating options, including 3M™ Scotchgard™ Anti-fog, multiple lens colors, and features like a removable foam gasket.

- 3M™ Pressure Diffusion Temple Technology add comfortable and secure fit
- Multiple lens color options including polarized lenses
- Provides maximum protection
- Secure fit even during intense movements
- Long-lasting clarity thanks to Scotchgard™ Anti-Fog Coating
- Rugged Anti-Scratch (RAS) Coating
- Dual lenses with multiple color options...



SF601 PC clear



SF601 Kit PC clear



Foam insert

Product code	Description	Design	Surface	Filter	Mechanical durability
SF601	SecureFit 601 PC Clear				FT KN
SF602	SecureFit 602 PC Grey				FT KN
SF603	SecureFit 603 PC Amber				FT KN
SF617	SecureFit 617 PC Shd 1.7 IR				F
SF630	SecureFit 630 PC Shd 3.0 IR				F
SF650	SecureFit 650 PC Shd 5.0 IR				F
SF611	SecureFit 611 PC Grey polarized				FT
SF601 RAS	SecureFit 601 PC Clear RAS				FT K
SF 610	SecureFit 610 PC I/O mirror				FT
SF600 FI	SecureFit 600FI		-	-	-
SF600 Kit	SecureFit 601 Kit PC Clear				FT KN

3M™ Solus™ 1000

NEW

3M™ Solus 1000 Series is excellent safety spectacle with Scotchgard™ Anti-fog coating. These special lenses lasts longer than traditional anti-fog coatings, helping to increase eyewear performance in challenging situations. Frame is available in two variations, Blue/Black or Green/Black.

- Soft nose bridge
- Soft temples for added comfort
- Optional elastic strap
- Vented, removable foam gasket for closer fitting
- Removable temple
- Packaged individually with microfibre pouch



Solus Blue/Black Kit Clear



Foam gasket



Elastic strap



FREE
Black microfiber pouch



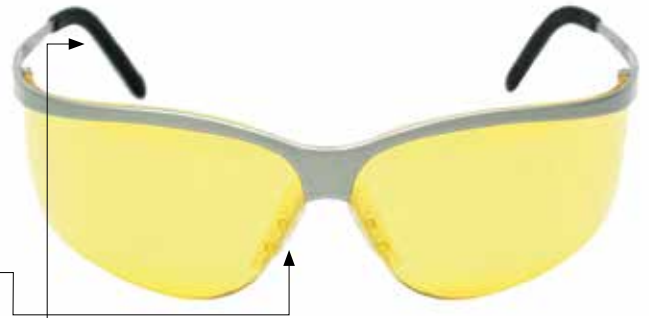
Removable temple

Product code	Description	Design	Surface	Filter	Mechanical durability
S1101SGAFKT-EU	Solus Blue/Blk Kit Clear				FT
S1101SGAF-EU	Solus Blue/Black PC Clear				FT
S1102SGAF-EU	Solus Blue/Black PC Grey				FT
S1103SGAF-EU	Solus Blue/Black PC Amber				FT
S1201SGAFKT-EU	Solus Green/Blk Kit Clear				FT
S1201SGAF-EU	Solus Green/Black PC Clear				FT
S1102SGAF	Solus Green/Black PC Grey				FT
S1103SGAF-EU	Solus Green/Black PC Amber				FT
1000G-EU	Solus Foam Insert		-	-	-
1000S-EU	Solus Headband		-	-	-

3M™ Metaliks™ Sport

3M™ Metaliks Sport™ is design spectacles with polished metal frame. De-centered Polycarbonate twin lens, strongly curved for superior eye coverage and optimal field of vision.

- Excellent choice for sports
- Soft adjustable nose pads
- Optical class 1 for maximum clarity
- Soft-touch temple tips for perfect fit and additional comfort
- Formable rubber tipped temples for extra comfort and adjustability



Metaliks Sport PC Mirror Blue



Product code	Description	Design	Surface	Filter	Mechanical durability
71461-00001M	Metaliks SPORT PC Clear				FT
71461-00002M	Metaliks SPORT PC Amber				FT
71461-00003M	Metaliks SPORT PC Mirror Blue				FT
71461-00004M	Metaliks SPORT PC Grey				FT

3M™ LED Light Vision

3M™ Led Light Vision spectacles is equipped with an adjustable ultra-bright LED with long battery life (over 50 hours). These safety spectacles allow you to light a dark zone while protecting your eyes and having hands free for working.

- The polycarbonate anti-fog lens protects against UV
- Impact at extreme temperatures
- Frame with soft-touch temples
- Nose pads for extra-comfort
- 2x CR2032 lithium batteries can be easily replaced
- Packaged individually with microfibre pouch
- The frames have rubber sides for extra convenience
- Adjustable high bright LED diodes with long lifetime (> 50 hours)



FREE
Peltor black pouch, microfiber

Product code	Description	Design	Surface	Filter	Mechanical durability
11356-00000M	Led Light Vision PC Clear		 		FT

3M™ 2800 Series

The 3M™ 2800 series have been designed to be mainly worn over prescription spectacles.

Key features is optical class 1 lenses suitable for prolonged use and excellent protection against UV radiation. These product can be used in a wide range of applications including certain welding applications, construction, engineering etc.



- Pantoscopic features
- Adjustable temple arm length
- The temple also include eyelets to allow easy attachment of a lanyard
- Can be worn over prescription eyewear
- 2805 version is designed for Welding



2805 version for Welding



Product code	Description	Design	Surface	Filter	Mechanical durability
2800	Safety over spectacles PC Clear				FT
2802	Safety over spectacles PC Amber				FT
2805	Safety over spectacles PC Welding shade IR 5.0				FT

3M™ Goggle Gear™ 500

3M™ Goggle Gear 500 has a low profile design, can be used with optional prescription insert and offers excellent protection against UV radiation. The goggle with a Scotchgard™ Anti-Fog coating resists fogging longer than traditional anti-fog coatings.

- Optical class 1 for prolonged use
- 3M™Scotchgard™ Anti-Fog Coating provides scratch resistance and durability
- Coating retains its effectiveness even after multiple washings
- Can be disinfected with diluted bleach soaking or alcohol wipes without losing its anti-fog performance
- An adjustable headband
- Optional Prescription insert



Product code	Description	Design	Surface	Filter	Mechanical durability
GG501SGAF-EU	Google Gear 500 PC Clear			-	BT 3,4 KN
GG500PI-EU	Goggle Prescription Insert		-	-	FT

3M™ 2890

With a modern slim design, the 3M™ 2890 Safety Goggles combine performance, comfort and style while providing the wearer with an excellent field of vision.

Designed to be compatible with 3M Halfmask respirators.



- Strong polycarbonate lens for impact resistance
- Indirectly ventilated goggles reduce fogging (2890/2890A)
- Excellent protection against liquid droplets and large dust particles
- Wide, easy-to-adjust strap for stable comfortable fit
- Addition protection against gas and fine particles (2890S/2890SA)
- Replacement lens options
- Optical class 1

Product code	Description	Design	Surface	Filter	Mechanical durability
2890	Indirectly ventilated goggles	PC Clear	AS AF	UV	BT 3,4,9 KN
2890A	Indirectly ventilated goggles	Acetate	AF	UV	FT 3,4 N
2890S	Sealed goggles	PC Clear	AS AF	UV	BT 3,4,9 KN
2890SA	Sealed goggles	Acetate	AF	UV	FT 3,4,5 N
289A	Acetate replacement lens	Acetate	AF	UV	FT
289	Replacement lens	PC Clear	AS AF	UV	BT
2895S	Sealed goggles	PC Clear	AS AF	IR UV	B 3,4,5, 9, KN



3M™ Comfort

3M™ SecureFit™ Series 400

The 3M™ SecureFit™ 400 safety spectacle is comprised of a rimless lens and fixed-length temple arm. This innovative design promotes improved comfort and security of fit. Temples also feature 3M Pressure Diffusion Temple Technology which helps diffuse pressure above the ear to enhance frame comfort across a diverse workforce.

- Excellent protection against UV radiation
- Lightweight design (19g)
- 3M Pressure Diffusion Temple Technology for prolonged use
- Better fit with soft adjustable nosepads
- Dual-injected padded temple touchpoints for added comfort over the ears
- Polycarbonat lens with optical class 1



SecureFit 401 with foam insert

Product code	Description	Design	Surface	Filter	Mechanical durability
SF401AF-EU	SecureFit 401 PC Clear				FT
SF403AF-EU	SecureFit 403 PC Amber				FT
SF402AF-EU	SecureFit 402 PC Grey				FT
SF408AS-EU	SecureFit 408 PC Blue				FT
SF410AS-EU	SecureFit 410 PC Mirror				FT
SF400FI	Foam Insert		-	-	-

3M™ 2840

The 3M™ 2840 series features an adjustable pantoscopic angle and temple arms with adjustable length. Models also include an integrated brow-guard for increased protection. The range includes a number of lens options.

- Lenses available in six colours
- Pantoscopic angle allows individual adjustment
- Temple arms with adjustable length (3 fixed positions)
- Soft inner padding for comfort and stability
- Integrated brow-guards
- Compatible with respirators/ half masks

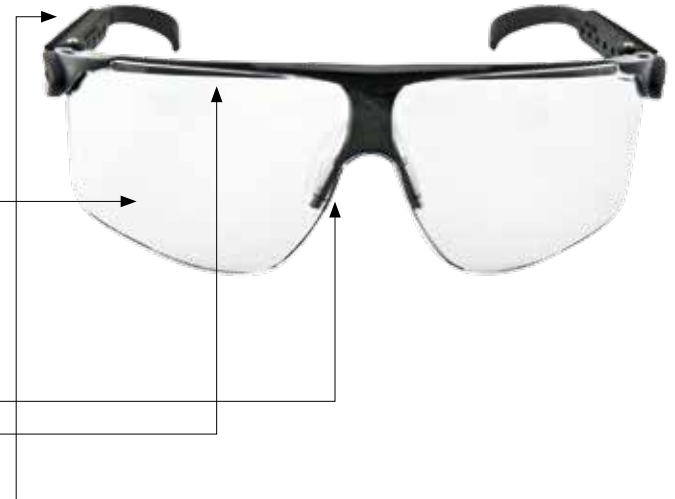


Product code	Description	Design	Surface	Filter	Mechanical durability
2840	2840 PC Clear				FT
2842	2842 PC Amber				FT
2846	2846 PC Orange				FT
2841	2841 PC Grey				FT
2844	2844 PC Mirror Gold I/O				FT
2845	2845 Welding PC IR 5.0				FT

3M™ Maxim™

The 3M™ Maxim™ Safety Spectacles feature an aspherical lens for 180° of Pure Vision and superior eye coverage.

- Aspherical lens for 180° of Pure Vision
- DX or RAS coating
- Ventilation channel to minimise misting
- Superior eye coverage and good field of vision
- Adjustable nose-pads
- 'Soft-touch' brow guard
- Adjustable temple lengths and pantoscopic adjustments



Product code	Description	Design	Surface	Filter	Mechanical durability
13225-00000M	MAXIM Black/Grey PC Clear				FT
13226-00000M	MAXIM Black/Grey PC Bronze				FT
13228-00000M	MAXIM Black/Grey PC Amber				FT
13229-00000M	MAXIM Black/Grey Denim PC Clear				FT
13323-00000M	MAXIM Black/Grey PC Weldingshade 3				FT
13324-00000M	MAXIM Black/Grey PC Weldingshade 5				FT
11864-00000M	MAXIM Black/Grey RAS PC Clear				FT, K



DX Coating

Is a state-of-the art combination: abrasion resistant, anti-mist, anti-static and prevents chemical attack. DX coating provides all day protection from all these elements.



RAS (Rugged Anti-Scratch) Coating

RAS super hard coat leverages of 3M coating chemistry expertise to offer long-lasting lens protection that's clearly different. It is an advanced anti-scratch lens coating designed to enhance eyewear performance in tough, abrasive, non-foggy environments. Lowers replacement costs by extending the life of the lens.

3M™ Maxim™ Ballistic

The 3M™ Maxim™ Ballistic Safety Spectacles are designed specifically to wear in combination with a helmet or ear muffs.

- Ventilation channel to minimise misting
- Soft, adjustable nose bridge
- 'Soft-touch' brow guard
- Adjustable temple lengths and pantoscopic (angle) adjustments
- Excellent coverage and good field of vision
- Meet the STANAG 2920 ballistic test

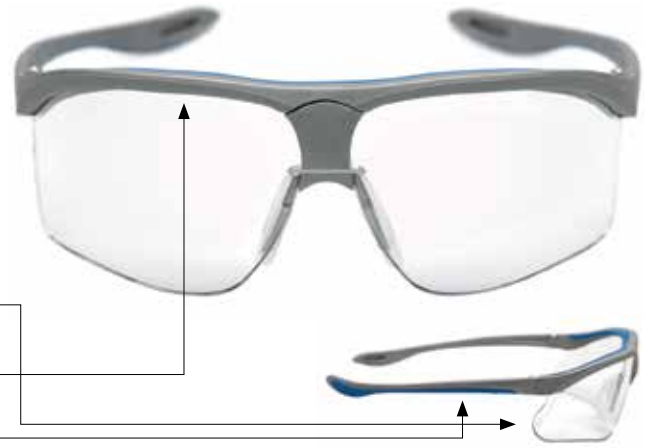


Product code	Description	Design	Surface	Filter	Mechanical durability
13296-00000M	Maxim Ballistic PC Clear				FT
13297-00000M	Maxim Ballistic PC Bronze				FT
13299-00000M	Maxim Ballistic PC Amber				FT
11865-00000M	Maxim Ballistic RAS PC Clear				FT, K

3M™ Maxim Sport

Contemporary styled 3M™ Maxim sport spectacles combines quality optics, a dual-injected molded and lightweight frame, and polycarbonate lenses.

- An incredibly lightweight frame
- Expansive coverage and a wide viewing range (180°)
- Cushion browguard for extra comfort and shock absorption
- Adjustable temple lengths and pantoscopic adjustments



Product code	Description	Design	Surface	Filter	Mechanical durability
13240-00000M	Maxim Sport-Silver/Blue PC Clear				FT

3M™ Maxim Hybrid

The 3M™ Maxim™ Hybrid Goggle is a very lightweight, low profile form of eyewear protection, offering high comfort and unsurpassed protection against liquid droplets and mechanical hazards.

- High comfort and FT impact protection.
- The high performance ventilation system overcomes fogging problems
- Adjustable head strap



Product code	Description	Design	Surface	Filter	Mechanical durability
13330-00000M	Maxim Hybrid PC Clear				FT
1330-00001M	Maxim Hybrid Spare lens PC Clear		-	-	-

3M™ Tora™ Cord Control System (CCS)

3M™ Tora™ Cord Control System (CCS) is convenient for workers who are intermittently exposed to noise. These Safety spectacles with a cord control system designed to keep corded earplugs attached, untangled and ready for use

- Anti-Scratch & Anti-Fog coating for increased durability and improved vision
- Can also be used as a lanyard and worn around the neck
- Possibility to add a foam insert and earplugs for enhanced comfort



Tora with earplugs



Fit test

Product code	Description	Design	Surface	Filter	Mechanical durability
71511-0000M	Tora CCS PC Clear				FT
71511-99999	Foam insert		-	-	-
UF-01-000	Ultrafit Pre Moulded Earplugs		-	-	-

3M™ Tora™

3M™ Tora™ spectacles offer a contemporary smart look with the additional benefit of an adjustable neck cord for increased comfort and convenient storage.

- Optical class 1
- Anti-Scratch & Anti-Fog coating for increased durability and improved vision
- Extremely lightweight at only 22 g
- Wraparound lens for excellent peripheral vision



Tora PC Amber



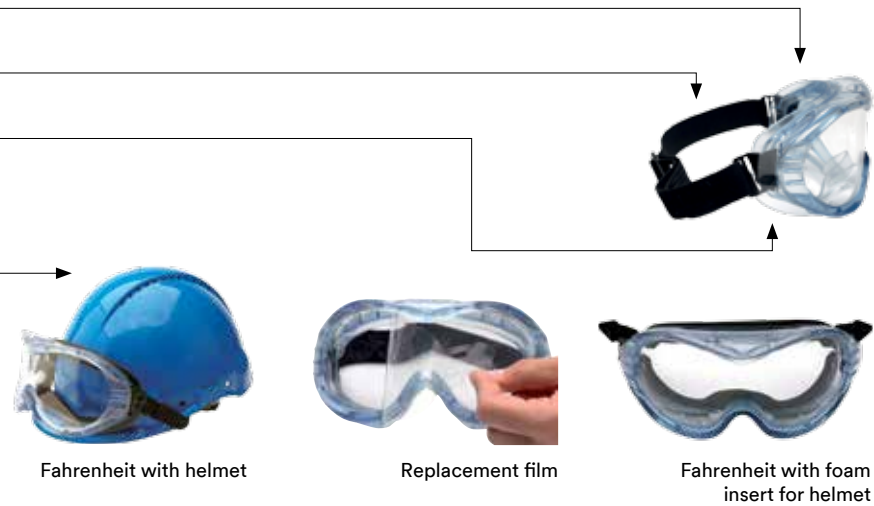
Tora PC Bronze

Product code	Description	Design	Surface	Filter	Mechanical durability
71501-00001M	Tora PC Clear with neckband				FT
71501-00002M	Tora PC Bronze with neckband				FT
71501-00003M	Tora PC Amber with neckband				FT

3M™ Fahrenheit

The Fahrenheit Goggles has a soft PVC crystal frame with a wide support area all around the face to enhance comfort. Model fits well with prescription glasses, disposable respirators and half-masks.












- Specific channel on the side of the frame to accommodate the temple of prescription frames
- Wide nylon elastic strap (25mm)
- Pivoting strap attachment mechanism.
- Indirect ventilation system
- Fits well with prescription glasses, disposable respirators and half-masks



Fahrenheit with helmet

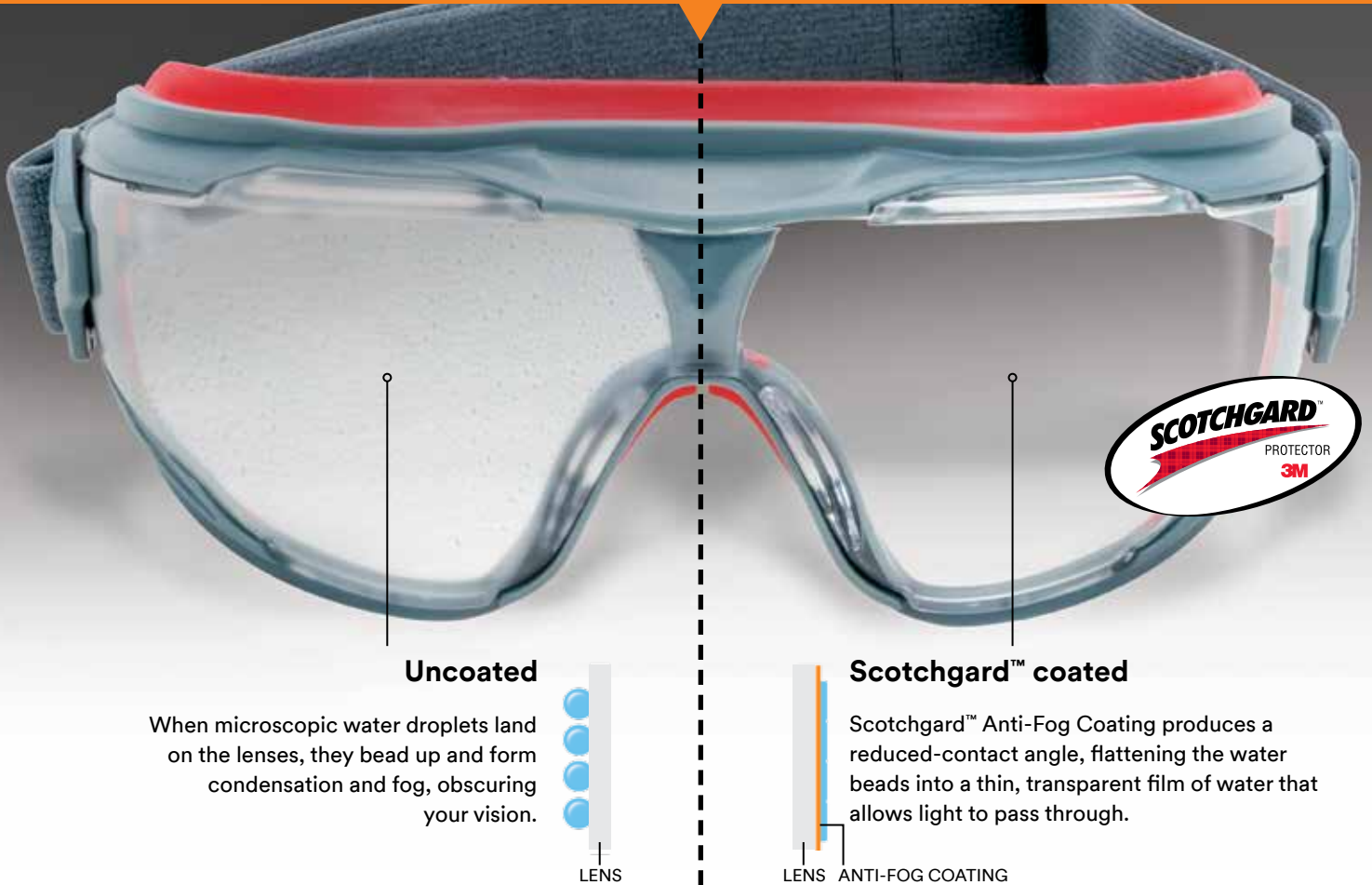
Replacement film

Fahrenheit with foam insert for helmet

Product code	Description	Lens option	Surface	Filter	Mechanical durability
71360-00011M	Fahrenheit PC	PC Clear	 	-	BT 3,4
71360-00012M	Fahrenheit PC	PC Clear		-	BT 3,4
71360-00015M	Fahrenheit goggle nonventilated	Acetate	 	-	F 3,4,9
71360-00014M	Fahrenheit goggle with foam	PC Clear	 	-	BT 3,4
71360-00017M	Fahrenheit acetate with foam for helmet	Acetate	 	-	F 3,4,9
71360-00013M	Fahrenheit acetate w/t-n-wear	Acetate	 	-	F 3,4,9
71360-0006M	Replacement films	-	-	-	-

Scotchgard coating

Helps workers see clearly, longer. Scotchgard Anti-fog coating is designed for working in challenging situations, such as hot and humid conditions, indoor and outdoor work, physically demanding tasks and climate-controlled areas.



3M™ Portfolio with Scotchgard coating



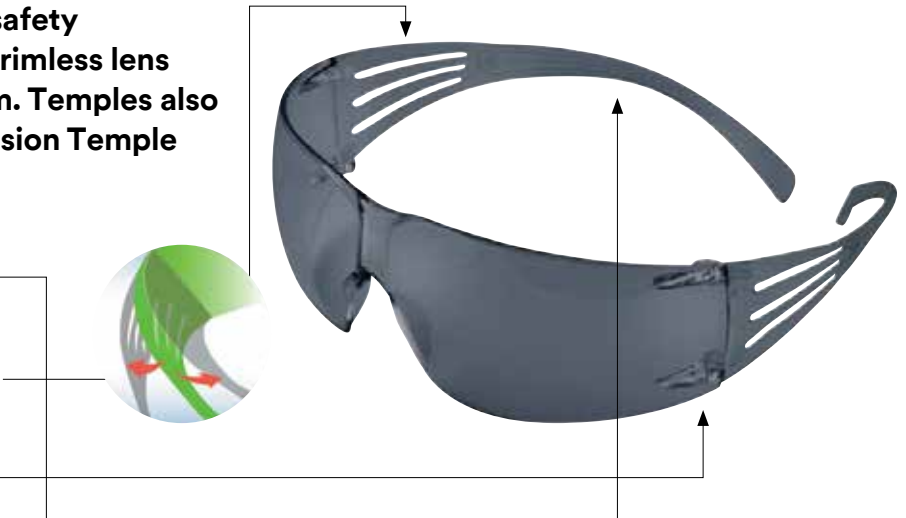


3M™ Classic

3M™ SecureFit™ SF200

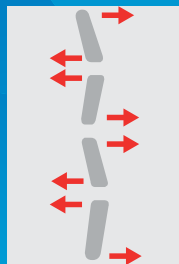
The 3M™ SecureFit™ 200 safety spectacle is comprised of a rimless lens and fixed-length temple arm. Temples also feature 3M™ Pressure Diffusion Temple Technology

- Self adjustable to fit different head sizes
- 3M™ Pressure Diffusion Temple Technology helps diffuse pressure over the head
- Integrated side-shield for added protection
- Lightweight design (18g)



Product code	Description	Design	Surface	Filter	Mechanical durability
SF201AF-EU	SecureFit PC Clear				FT
SF203AF-EU	SecureFit PC Amber				FT
SF202AF-EU	SecureFit PC Grey				FT

Pressure Diffusion Temple (PDT) technology.



Thanks to 3M Pressure Diffusion Temple technology, 3M SecureFit safety eyewears are comfortable to use and fit extremely well with hearing protection.

3M™ 2820

The 3M™ 2820 series safety spectacle offers maximum protection and a stylish modern design. Lens coating provide excellent scratch resistance and antifog performance.

- Simple, stylish design
- Excellent protection against UV radiation
- Soft, flexible temples for wearer comfort
- Strong polycarbonate lens
- Optical class 1
- Side protection
- Can be used in a wide range of applications including construction, engineering, general assembly and inspection work
- Products 2820 are intended for protection against high speed particles at low energy at extreme temperature conditions



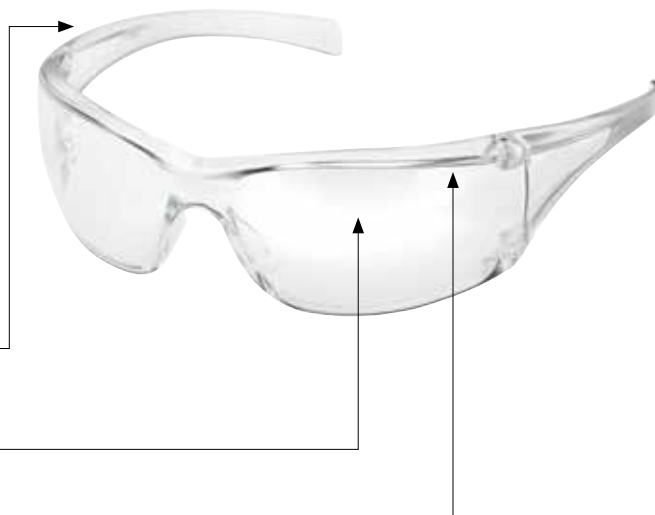
2820 PC Clear

Product code	Description	Design	Surface	Filter	Mechanical durability
2820	2820 PC Clear				FT
2821	2821 PC Grey				FT
2822	2822 PC Amber				FT

3M™ Virtua AP

The 3M™ Virtua AP™ safety spectacle features unisex styling designed to appeal both male and female wearers. The new design offers excellent coverage and field vision.

- Unisex design
- Comfortable, impact-resistant, lightweight frame (26g)
- Strong polycarbonate lenses which absorb 99,9,% of UV radiation
- Integrated side covers
- Eyebrow protection



Product code	Description	Design	Surface	Filter	Mechanical durability
71512-00000M	Virtua AP PC Clear				FT
71512-00001M	Virtua AP PC Grey				FT

3M™ Visitor

Visitor lightweight overspectacles with polycarbonate lenses and moulded sideshields and browguards offers excellent protection against ultraviolet radiation (UV).

- Can be worn on their own or over prescription glasses
- Integrated side-shield for maximum protection
- Optical class 1
- Total weight only 39g



Product code	Description	Design	Surface	Filter	Mechanical durability
71448-00001M	Visitor PC Clear	-	-		F

Accessories 3M™

Cleaning

26-6710-00M

Black cloth of polyester/ polyamide microfiber for cleaning the lenses. Washable in 40°C. Size 17,5×17,5 cm.



26-2000-00M

A dispenser box with 500 cleaning tissues. The wet wipes add protection to the lenses against fogging and electric charge.



Neckbands

Neckbands allow to hang glasses around the neck for enhanced comfort and handy availability.

90931-00000

Nylon headband with adjustment system with zipper.



272

Premium headband with safety fuse.



90943-00000

Package of 6 pieces of universal headbands.



Cases

12-0500-00M

Case for glasses with belt loop.



26-6780-00M

Peltor black pouch, microfiber.



12-0600-00M

Soft case with zipper, belt loop and buckle.



275

Case for closed safety glasses with strap.



Others

71511-9999

Foam insert for TORA CCS.

26-4000-00M

Lights Headlights - universal lights for glasses.



SF400FI

SecureFit 400 Foam insert also for use on SF200



SF600FI

SecureFit 600 Foam Insert



1000G-EU

Solus Foam Insert

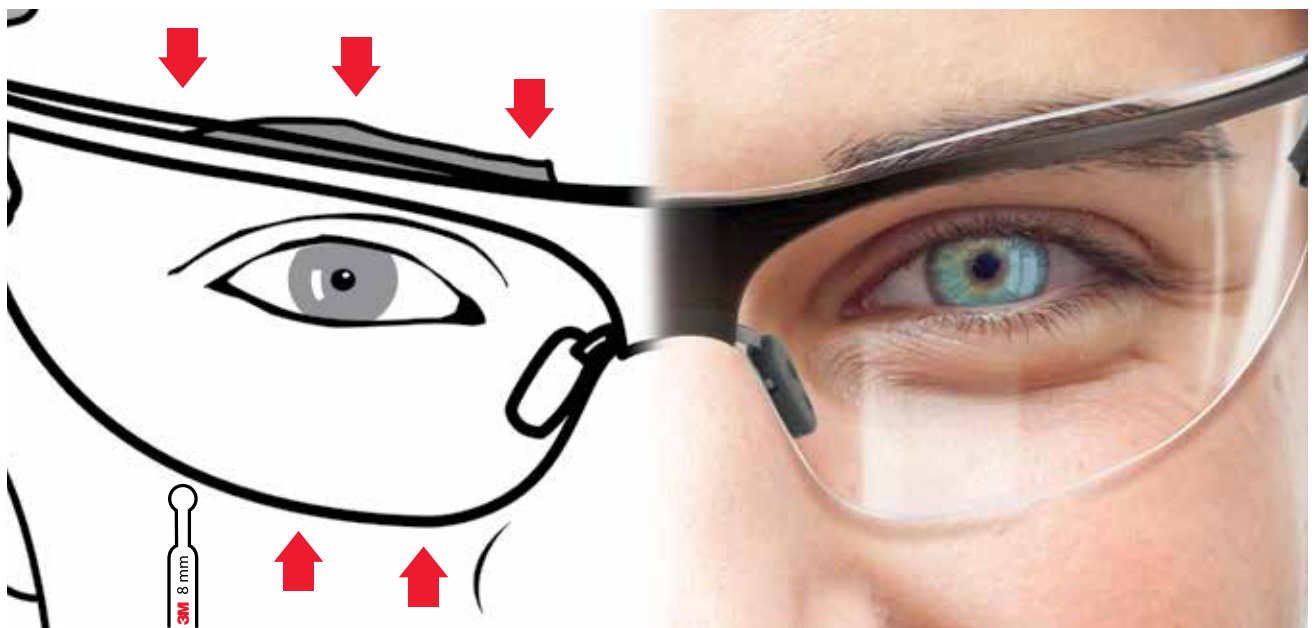


3M™ Eyewear Fit System

Making an assessment based on size and adjustable features is not always adequate to determine best fit and security of eyewear.

The innovative 3M Eyewear Fit System, is a simple 6 step method and enables a measured evaluation of fit. This method, utilising the

Coverage and Gap gauge tools will help assess 4 elements of protective eyewear fit:



View

Assessment to ensure the wearer can see in all directions of eye rotation without major obstruction to the field of view that would interfere with visibility to perform works tasks.

Coverage

The Coverage gauge assesses how well the safety eyewear covers the soft tissue area around the eyes.



Gaps

The Gap gauges help to identify excessive gaps between the eyewear and the face. Large gaps can provide a clear path for flying debris.

Security

Assessment to ensure the eyewear stays in place on the wearer's head and does not fall off with head movement.



The full 6 step method also includes training and re-evaluation.

Please find out more by contacting your 3M Personal Safety Sales Representative.

Product information table

Product code	Description	Type of lens	Mechanical durability	Surface	Filter
SF601	SecureFit 601 PC Clear	PC Clear	FT KN	Scotchgard	UV
SF602	SecureFit 602 PC Grey	PC Grey	FT KN	Scotchgard	Solar
SF603	SecureFit 603 PC Amber	PC Amber	FT KN	Scotchgard	UV, Blue
SF617	SecureFit 617 PC Shd 1.7 IR	PC Shd 1.7 IR	F	AS	Welding (UV-IR)
SF630	SecureFit 630 PC Shd 3.0 IR	PC Shd 3.0 IR	F	AS	Welding (UV-IR)
SF650	SecureFit 650 PC Shd 5.0 IR	PC Shd 5.0 IR	F	AS	Welding (UV-IR)
SF611	SecureFit 611 PC Grey Polarized	PC Grey Polarized	FT	AS	Solar
SF601RAS	SecureFit 601 PC Clear RAS	PC Clear	FT K	RAS	UV
SF610	SecureFit 610 PC I/O Mirror	PC I/O Mirror	FT	AS	Solar
S1101SGAFKT-EU	Solus 1000 Blue/Blk Kit Clear	PC Clear	FT	Scotchgard	UV
S1101SGAF-EU	Solus 1000 Blue/Clk PC Clear	PC Clear	FT	Scotchgard	UV
S1102SGAF-EU	Solus 1000 Blue/Blk PC Grey	PC Grey	FT	Scotchgard	Solar
S1103SGAF-EU	Solus 1000 Blue/Blk PC Amber	PC Amber	FT	Scotchgard	Solar,Blue
S1201SGAFKT-EU	Solus 1000 Green/Blk Kit Clear	PC Clear	FT	Scotchgard	UV
S1201SGAF-EU	Solus 1000 Green/Blk PC Clear	PC Clear	FT	Scotchgard	UV
S1102SGAF-EU	Solus 1000 Green/Blk PC Grey	Pc Grey	FT	Scotchgard	Solar
S1103SGAF-EU	Solus 1000 Green/Blk PC Amber	PC Amber	FT	Scotchgard	Solar, Blue
71461-00001M	Metaliks Sport PC Clear AS-AF	PC Clear	FT	AS-AF	UV
71461-00002M	Metaliks Sport PC Amber AS-AF	PC Amber	FT	AS-AF	UV,Blue
71461-00003M	Metaliks Sport PC Mirror Blue AS-AF	PC Mirror Blue	FT	Mirror	Solar
71461-00004M	Metaliks Sport PC Grey AS-AF	PC Grey	FT	AF-AF	Solar
11356-00000M	LED Light Vision PC Clear AS-AF	PC Clear	FT	AS-AF	UV
2800	Safety Glasses over prescription spectacles AS PC Clear	PC Clear	FT	AS	UV
2802	Safety Glasses over prescription spectacles AS PC Amber	PC Amber	FT	AS	UV Blue
2805	Safety Glasses over prescription spectacles AS PC Weldingshade IR 5.0	PC Weldingshade 5	FT	AS	Welding (UV-IR)
GG501SGAF-EU	Goggle Gear 500 PC Clear	PC Clear	BT	Scotchgard	UV
2890	2890 Indirectly ventilated goggles	PC Clear	BT 3 4 9	AS-AF	UV
2890A	2890A Indirectly ventilated goggles	Acetate Clear	FT 3 4	AF	-
2890S	2890S Sealed goggles	PC Clear	BT 3 4 5 9	AS-AF	UV
2890SA	2890SA Sealed goggles	Acetate Clear	FT 3 4 5	AF	-
SF401AF-EU	SecureFit 401 AS-AF PC Clear	PC Clear	FT	AS-AF	UV
SF403AF-EU	SecureFir 403 AS-AF PC Amber	PC Amber	FT	AS-AF	Solar, Blue
SF402AF-EU	SecureFit 402 AS-AF PC Grey	PC Grey	FT	AS-AF	Solar
SF408AS-EU	SecureFit 408 AS PC Blue	PC Blue	FT	AS	Solar
SF410AS-EU	SecureFit 410 AS PC Mirror	PC Mirror	FT	AS	Solar
2840	2840 Safety Spectacles PC Clear AS-AF	PC Clear	FT	AS-AF	UV

VLT (visible light transmittance)	Type of visor	Special use	Mechanical work	Work outdoor	Driver	Use in chemistry	Metalurgy	Glassblowing	Control of surface	Welding
90%	2C-1.2 3M 1 FT KN		x	x			x			
13%	5-3.13M 1 FT KN		x	x	x					
87%	2C-1.2 3M 1 FT KN		x	x					x	
52%	2C-1.2 3M 1 FT K									x
11%	5-3.13M 1 FT									x
2%	5-1.7 3M 1 FT									x
14%	1.7 3M 1F			x	x					
90%	3 3M 1 F	x	x	x			x			
48%	5 3M 1 F			x						
88%	2C-1.2 3M 1 FT K N CE		x	x			x			
88%	2C-1.2 3M 1 FT K N CE		x	x			x			
13%	5C-3.1 3M 1 FT K N CE		x	x	x					
85%	2C-1.2 3M 1 FT K N CE		x	x					x	
88%	2C-1.2 3M 1 FT K N CE		x	x			x			
88%	2C-1.2 3M 1 FT K N CE		x	x			x			
13%	5C-3.1 3M 1 FT K N CE		x	x	x					
85%	2C-1.2 3M 1 FT K N CE		x	x					x	
91%	2C-1,2,3M.1.FT		x	x						
87%	2C-1,2,3M.1.FT		x	x					x	
13%	5-3,1,3M.1.FT			x	x					
16%	5-3,1,3M.1.FT			x	x					
92%	2C-1,2,3M.1.FT		x	x	x					
91%	2C-1,2,3M.1.FT		x				x			
94%	2-1,2,3M.1.FT		x	x					x	
Less than 1%	4-5 3M.1.FT		x							x
89%	2C-1.2 3M 1 BT K N		x	x						
86%	2C-1,2 3M 1 K N BT		x							
89%	2C-1,2 3M 1 N FT					x				
86%	2C-1,2 3M 1 K N BT		x							
89%	2C-1,2 3M 1 N FT					x				
90%	2C-1.2 3M 1 FT		x	x			x			
87%	5-3.13M 1 FT		x	x					x	
13%	2C-1.2 3M 1 FT		x	x						
12%	5-3.13M 1 FT			x						
50%	5-1.7 3M 1 FT			x						
88%	2C-1,2,3M.1.FT		x	x						

Product information table

Product code	Description	Type of lens	Mechanical durability	Surface	Filter
2841	2841 Safety Spectacles PC Grey AS-AF	PC Grey	FT	AS-AF	Solar
2842	2842 Safety Spectacles PC Amber AS-AF	PC Amber	FT	AS-AF	UV, Blue
2844	2844 Safety Spectacles PC Mirror AS I/O	PC I/O Mirror	FT	Mirror	Solar
2845	2845 Safety Spectacles PC AS-AF IR Weldindshade 5	PC Weldingshade IR 5,0	FT	AS-AF	Welding (UV-IR)
2846	2846 Safety Spectacles PC AS-AF Orange	PC Orange	FT	AS-AF	UV, Blue
13225-00000M	Maxim Black/Grey PC Clear	PC Clear	FT	DX	UV
13226-00000M	Maxim Black/Grey PC Bronze	PC Bronze	FT	DX	Solar, Blue
13228-00000M	Maxim Black/Grey PC Amber	PC Amber	FT	DX	UV, Blue
13229-00000M	Maxim Black/Grey PC Denim Pc Clear	PC Denim Clear	FT	DX	UV
13323-00000M	Maxim Black/Grey PC Weldingshade 3	PC Weldingshade 3	FT	DX	Welding (UV-IR)
13324-00000M	Maxim Black/Grey PC Weldingshade 5	PC Weldingshade 5	FT	DX	Welding (UV-IR)
11864-00000M	3M Maxim RAS PC Clear	PC Clear	FT K	RAS	UV
13296-00000M	Maxim Ballistic PC Clear DX	PC Clear	FT	DX	UV
13297-00000M	Maxim Ballistic PC Bronze DX	PC Bronze	FT	DX	Solar, Blue
13299-00000M	Maxim Ballistic PC Amber DX	PC Amber	FT	DX	UV, Blue
11865-00000M	3M Maxim Ballistic RAS PC Clear	PC Clear	FT K	RAS	UV
13240-00000M	Maxim Sport PC Clear	PC Clear	FT	DX	UV
13330-00000M	Maxim Hybrid PC Clear DX	PC Clear	FT	DX	-
13330-10000M	Spare lens for Maxim Hybrid PC Clear DX	PC Clear	FT	DX	-
71511-00000M	3M Tora CCS PC Clear, gap for headband	PC Clear	FT	AS-AF	UV
71501-00001M	Tora PC Clear AS-AF with headband	PC Clear	FT	AS-AF	UV
71501-00002M	Tora PC Bronze AS-AF with headband	PC Bronze	FT	AS-AF	Solar, Blue
71501-00003M	Tora PC Amber AS-AF with headband	PC Amber	FT	AS-AF	UV, Blue
71360-00011M	Fahrenheit Safety Goggles PC AS-AF	PC Clear	BT 3 4	AS-AF	UV
71360-00012M	Fahrenheit Safety Goggles PC AS	PC Clear	BT 3 4	AS	UV
71360-00015M	Fahrenheit Safety Goggles PC AS-AF	Acetate	F 3 4 9	AS-AF	UV
71360-00014M	Fahrenheit Safety Goggles PC AS-AF with foam for helmet	PC Clear	BT 3 4	AS-AF	UV
71360-00017M	Fahrenheit Safety Goggles PC AS-AF with foam for helmet	Acetate	F 3 4 9	AS-AF	UV
71360-00013M	Fahrenheit Safety Goggles W/T N- wear PC AS-AF	Acetate	F 3 4 9	AS-AF	UV
SF201AF-EU	3M SecureFit safety spectacles, PC Clear	PC Clear	FT	AS-AF	UV
SF203AF-EU	3M SecureFit safety spectacles, PC Amber	PC Amber	FT	AS-AF	UV,Blue
SF202AF-EU	3M SecureFit safety spectacles, PC Grey	PC Grey	FT	AS-AF	Solar
2820	2820 Safety Spectacles PC Clear AS-AF	PC Clear	FT	AS-AF	UV
2821	2821 Safety Spectacles PC Grey AS-AF	PC Grey	FT	AS-AF	Solar
2822	2822 Safety Spectacles PC Amber AS-AF	PC Amber	FT	AS-AF	UV, Blue
71512-00000M	Virtua AP PC Clear AS	PC Clear	FT	AS	UV
71512-00001M	Virtua AP PC Grey AS	PC Grey	FT	AS	UV
71448-00001	Visitor PC Clear	PC Clear	F	-	UV

VLT (visible light transmittance)	Type of visor	Special use	Mechanical work	Work outdoor	Driver	Use in chemistry	Metalurgy	Glassblowing	Control of surface	Welding
19%	5-2,5 3M 1 FT			x	x					
93%	2-1,2, 3M 1 FT		x	x					x	
53%	5-1,7 3M 1 FT			x	x					
2%	5 3M 1 FT									x
45%	2-1,7 3M 1 FT		x	x					x	
92%	2C-1,2,3M.1.FT		x	x						
16%	5-3,1,3M.1.FT			x	x					
94%	5-1,7,3M.1.FT		x	x					x	
92%	2C-1,2,3M.1.FT		x	x			x			
15%	3.3M.1.FT									x
2%	5.3M.1.FT									x
92%	2C-1,2,3M.1.FTK	x	x	x			x			
92%	2C-1,2,3M.1.FT		x	x			x			
16%	5-3,1,3M.1.FT		x	x	x					
94%	2C-1,2,3M.1.FT		x	x					x	
92%	2C-1,2,3M.1.FTK	x	x	x						
92%	2C-1,2,3M.1.FT		x	x			x			
92%	3M.1.FT					x				
92%	3M.1.FT		x			x				
92%	2C-1,2,3M.1.FT		x	x						
92%	2C-1,2,3M.1.FT		x	x						
20%	5-2.5. 3M. 1. FT			x						
87%	2C-1,2,3M.1.FT		x	x					x	
92%	2C-1,2. 3M 1.B		x							
92%	2C-1,2. 3M 1.B		x							
92%	2C-1,2. 3M 1.B.9		x			x	x			
92%	2C-1,2. 3M 1.B		x							
92%	2C-1,2. 3M 1.B.9		x			x	x			
92%	2C-1,2. 3M 1.B.9		x			x	x			
93%	2C-1,2 3M 1 FT		x	x						
93%	2C-1,2 3M 1 FT		x	x					x	
19%	5-3,1,3M 1 FT		x	x	x					
93%	2C-1,2,3M.1.FT		x	x						
19%	5-2,5 3M 1 FT			x	x					
93%	2-1,2 3M 1 FT		x	x					x	
92%	2C-1,2,3M.1.FT		x	x						
22%	2C-1,2,3M.1.FT		x	x						
92%	3M .1.F		x	x						

European standards

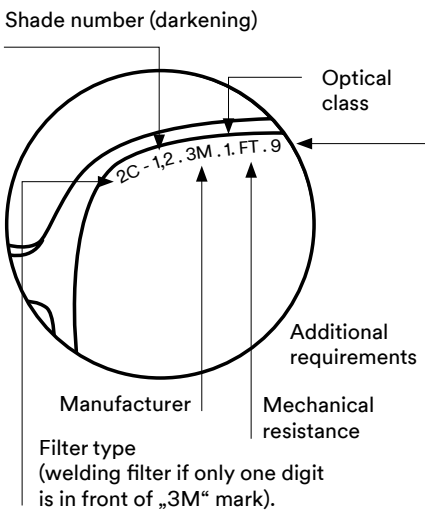
The protective eyewear whether equipped with plano or prescription lenses are classified as PPE - Personal Protective Equipment -level 2 (criminal responsibility for not compliance with the requirements is involved). The protective eyewear must be examined and approved by a certified European laboratory (e.g. INSPEC, INRS). The tests allow the evaluation of the equipment on the basis of criteria provided by the EN 166 standard. The symbols marked on frames and lenses describe the corresponding protection level according to obtained results.

EN 166: General specification (spectacles, goggles, visors and corrective lenses)

EN 169: Welding filters.
EN 170: UV radiation filters.
EN 171: IR radiation filters.

EN 172: Sunglare filters for industrial use.
EN 1731: Mesh visor specifications.

Lens marking identification



Lens filter type (protection)

2, 2C or 3	UV
4	Infrared
5 or 6	Sunglare
1,7 to 7	Welding filter if no shade number is mentioned

Mechanical resistance

S	Reinforced resistance (12 m/s)
F(T)	Low energy impacts (45 m/s)
B(T)	Medium energy impacts (120 m/s)
A(T)	High energy impacts (190 m/s)
T	Impact protection at extreme temperatures (-5 °C/ +55 °C).

Shade number (darkening)

1,2	Clear or yellow
1,7	Orange, minimizer or I/O
2,5	Bronze or grey
3,1	Dark grey, dark bronze or mirror

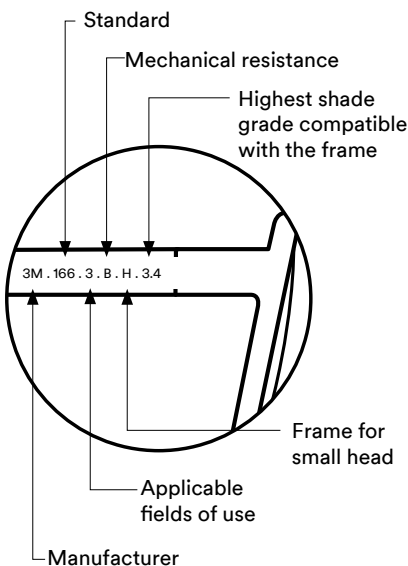
Additional requirements

8	Short circuit electric arc
9	Molten metal splash
K	Surface resistance against damage by dust fine particles
N	Resistance to fogging

Manufacturer: 3M

Optical class 1: permanent use

Frame marking identification



3M identification of the manufacturer

166 Number of standard

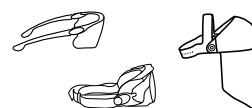
Applicable fields of use

3	Liquids (droplets = goggles, splashes – visor)
4	Large dust particles (to 5 µm) – goggles
5	Gas and small particles (below 5 µm) – goggles
8	Short circuit electric arc – visor
9	Molten material and hot solids – goggles or visor

Symbol of mechanical resistance

S	Reinforced resistance (CR39 – tempered glass)
F(T)	Impact resistance with velocity 45 m/s (polycarbonate -acetate)
B (T)	Impact resistance with velocity 120 m/s (polycarbonate -acetate)
A (T)	Impact resistance with velocity 190 m/s (polycarbonate -acetate)
T	Impact resistance at extreme temperatures (-5 °C / +55 °C)
3,4	Highest shade number compatible with the frame
H	Frame suitable for small head (PD = 54 mm)

Code number	filter type
2	UV filter
2C or 3	UV filter with good colour recognition
4	IR filter
5	Sunglare filter
6	Sunglare filter with IR specification



Shade number		
1,2		Clear or amber
1,7		I/O or Minimizer
2,5		Bronze or grey
3,1		Dark bronze, dark grey, blue or red mirror



* Welding filter if no code marking is specified: 1,7 = infrared 1,7; 3 = infrared 3,0; 5 = infrared 5,0; 7 = infrared 7,0;

Optical class	Optical power tolerance		
1.	+ 0.06 dioptres	Permanent use	All 3M™ lenses belong to optical class 1.
2.	+ 0.12 dioptres	Occasional use	
3.	+ 0.25 dioptres	Exceptional use	

Mechanical resistance	Impact level	Maximum speed	Lens			
A(T)	High energy impact	190 m/s	Polycarbonate			x
B(T)	Medium energy impact	120 m/s	Polycarbonate, acetate fibres		x	x
F(T)	Low energy impact	45 m/s	Polycarbonate, acetate fibres	x	x	x
S	Increased robustness	12 m/s	CR39, tempered glass	x	x	x

T: marking T behind the impact level (F, B or A) means that the frame is impact resistant at extreme temperatures (-5 °C / +55 °C).

Additional requirements				
8	Short circuit electric arc			x
9	Molten materials and penetration of hot solid bodies		x	x
K	Surface resistance against damage by dust fine particles	x	x	x
N	Resistance to vapours	x	x	x
R	Reinforced reflection in IR (>60%)	x	x	x
H	Frame suitable for small head (PD = 54 mm)	x		

Applicable fields of use (this section does not include spectacles)				
3	Liquid droplets		x	
3	Liquid splashes			x
4	Large dust particles (to 5 µm)		x	
5	Gas and fine dust particles (below 5 µm)		x	
8	Short circuit electric arc (min. thickness 14,4 mm and UV filter)			x
9	Molten metal and hot solids (shall resist to impact test)		x	x

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