

3M™ Solus™ 2000 Series Safety Spectacles

Technical datasheet



Product description

The 3M™ Solus™ 2000 Series is an extension to the Solus range of protective eyewear. The series offers several lens options to suit different applications. Models within this series of Solus protective eyewear have a slim frame with semi-rimless lenses and adjustable ratchet temples to allow users to adjust the lens for facial features and eyeglass position.

The 3M™ Scotchgard™ Anti-fog coating has been added to some models in the Solus 2000 series. This coating resists fogging longer than traditional anti-fog coatings, up to 25 washes with water*. It helps provide durable scratch resistance in tough work environments. The 3M™ Scotchgard™ Anti-fog coating is tested to EN 168 K&N for anti-fog and anti-scratch performance.

*3M internal testing per EN 168 test method when compared with traditional anti-fog coatings.

Key features

- ▶ Optical class 1 lens for prolonged use
- ▶ Semi-rimless ocular frame
- ▶ Frame colours in grey/red, grey/blue-green, and blue/grey
- ▶ Adjustable ratchet temples. Multiple position ratchet allows user to adjust lens for facial features and eyeglass position
- ▶ Polycarbonate lenses absorb 99.9% of UVA and UVB rays
- ▶ 3M™ Scotchgard™ Anti-Fog (SGAF) coating on selected models to give EN 166 Anti-Fog (N) and Anti-Scratch (K)
- ▶ Reader lenses on selected models (+1.5, +2.0 and +2.5 diopters)
- ▶ Models with anti-scratch coating also available
- ▶ Removable foam-lined gasket helps limit eye exposure to dirt and debris while providing added comfort and cushioning

Product range

Product ID	Description	Lens colour	Frame/shroud colour
S2001AF-BLU	3M™ Solus™ 2000 Safety Glasses, Blue/Grey Temples, Anti-Fog/Anti-Scratch, Clear Lens, S2001AF-BLU-EU	Clear	Blue/grey
S2001ASP-BLU	3M™ Solus™ 2000 Safety Glasses, Blue/Grey Temples, Clear Anti-Scratch+ (K), Clear Lens, S2001ASP-BLU-EU	Clear	Blue/grey
S2001SGAF-RED	3M™ Solus™ 2000 Safety Glasses, Grey/Red Temples, Scotchgard™ Anti-Fog (K&N), Clear Lens, S2001SGAF-RED-EU	Clear	Grey/red
S2001SGAF-BGR	3M™ Solus™ 2000 Safety Glasses, Grey/Blue-Green Temples, Scotchgard™ Anti-Fog (K&N), Clear Lens, S2001SGAF-BGR-EU	Clear	Grey/blue-green
S2001SGAF-BGR-F	3M™ Solus™ 2000 Safety Glasses, Grey/Blue-Green Temples, Foam Gasket, Scotchgard™ Anti-Fog (K&N), Clear Lens, S2001SGAF-BGR-F-EU	Clear	Grey/blue-green
S2002SGAF-RED	3M™ Solus™ 2000 Safety Glasses, Grey/Red Temples, Scotchgard™ Anti-Fog (K&N), Grey Lens, S2002SGAF-RED-EU	Grey	Grey/red
S2002SGAF-BGR	3M™ Solus™ 2000 Safety Glasses, Grey/Blue-Green Temples, Scotchgard™ Anti-Fog (K&N), Grey Lens, S2002SGAF-BGR-EU	Grey	Grey/blue-green
S2024AS-RED	3M™ Solus™ 2000 Safety Glasses, Grey/Red Temples, Anti-Scratch, Red Mirror Lens, S2024AS-RED-EU	Red mirror	Grey/red
S2005SGAF-BGR	3M™ Solus™ 2000 Safety Glasses, Grey/Blue-Green Temples, Scotchgard™ Anti-Fog (K&N), Brown Lens, S2005SGAF-BGR-EU	Brown	Grey/blue-green
S2003SGAF-BGR	3M™ Solus™ 2000 Safety Glasses, Grey/Blue-Green Temples, Scotchgard™ Anti-Fog (K&N), Amber Lens, S2003SGAF-BGR-EU	Amber	Grey/blue-green
S2007SGAF-BGR	3M™ Solus™ 2000 Safety Glasses, Grey/Blue-Green Temples, Scotchgard™ Anti-Fog (K&N), I/O Grey Lens, S2007SGAF-BGR-EU	I/O Grey	Grey/blue-green
S2017 ASP-BLU	3M™ Solus™ 2000 Safety Glasses, Black/Green frame, Anti-Scratch + (K), IR 1.7 Grey Lens, S2017ASP-BLK	IR 1.7 Grey	Black/green
S2030ASP-BLK	3M™ Solus™ 2000 Safety Glasses, Black/Green frame, Anti-Scratch + (K), IR 3.0 Grey Lens, S2030ASP-BLK	IR 3 Grey	Black/green
S2050ASP-BLK	3M™ Solus™ 2000 Safety Glasses, Black/Green frame, Anti-Scratch + (K), IR 5.0 Grey Lens, S2050ASP-BLK	IR 5 Grey	Black/green
S2015AF-BLU	3M™ Solus™ 2000 Reader Safety Glasses, Blue/Grey frame, Anti-Scratch / Anti-Fog, Clear +1.5 Lens, S2015AF-BLU	Clear with 1.5 diopter reader	Blue/grey
S2020AF-BLU	3M™ Solus™ 2000 Reader Safety Glasses, Blue/Grey frame, Anti-Scratch / Anti-Fog, Clear +2.0 Lens, S2020AF-BLU	Clear with 2.0 diopter reader	Blue/grey
S2025AF-BLU	3M™ Solus™ 2000 Reader Safety Glasses, Blue/Grey frame, Anti-Scratch / Anti-Fog, Clear +2.5 Lens, S2025AF-BLU	Clear with 2.5 diopter reader	Blue/grey

Typical applications

These products may be suitable for use in a wide variety of applications including:

- ▶ Food and beverage manufacturing
- ▶ General manufacturing
- ▶ Metal fabrication
- ▶ Military
- ▶ Maintenance, Repair and Operation (MRO)
- ▶ Oil and gas
- ▶ Transportation
- ▶ Primary metals
- ▶ Construction
- ▶ Applications where fogging may be an issue

Intended use

These products are intended for protection against a variety of hazards including low energy impact (F) at extremes of temperature -5°C and +55°C (T) in accordance with EN 166:2001.

These products also help protect against UV radiation in accordance with EN 170:2002 (clear and amber lenses), and sun glare in accordance with EN 172:1994 (grey).

The Solus 2000 lenses are also intended to give an enhanced level of protection against fogging and scratching from the 3M™ Scotchgard™ coating which meets K rating for anti-scratch (AS) and N rating for anti-fog (AF) as per EN 166:2001.

A number of lens options are available for a variety of different applications:

- ▶ Clear - good colour recognition and UV protection
- ▶ Grey - protection from sunglare
- ▶ Amber - enhanced contrast in low light conditions
- ▶ Brown – for bright conditions and to improve contrast and clarity
- ▶ Red mirror – protection from sunglare and to help improve contrast
- ▶ Indoor/Outdoor (I/O) – may be suitable for workers subject to glare when moving in and out of strong sunlight
- ▶ ASP – anti-scratch coating meeting “K” requirements of EN 166
- ▶ IR lenses – 1.7, 3.0 and 5.0 – certain welding, cutting and torch work applications
- ▶ 3M™ Scotchgard™ – for added protection against fogging and scratching (EN 166 Anti-Fog (N) and Anti-Scratch (K))

Use limitation

- ▶ Never modify or alter this product
- ▶ Do not use this product against hazards other than those specified in this document
- ▶ These products are not suitable for grinding or welding

Standards and approval

These products are type examined by Certottica SCRL, Ufficio Commerciale - test e certificazione, ZI Villanova K32013 Longarone BL, Italy, (Notified body number 0530).

These products are CE marked to the requirements of European Regulation (EU) 2016/425.

The applicable legislation can be determined by reviewing the Certificate and Declaration of Conformity at www.3M.com/Eye/certs

Materials listing

Description	Material
Lens	Polycarbonate
Frame	Polycarbonate
Temple	TPR
Hinge	Polycarbonate
Nosepad	TPR
Nosepiece (soft)	TPR
Screws	Stainless steel
Foam gasket	Polypropylene and EVA+LLD

Marking

The products have demonstrated compliance with the requirements of EN 166:2001 and associated standards and bear the following marks:

Product ref	Lens	Frame
S2001SGAF-RED	2C-1.2 3M 1 FT K N	3M EN 166 FT CE
S2001SGAF-BGR	2C-1.2 3M 1 FT K N	3M EN 166 FT CE
S2002SGAF-RED	5-3.1 3M 1 FT K N	3M EN 166 FT CE
S2002SGAF-BGR	5-3.1 3M 1 FT K N	3M EN 166 FT CE
S2003SGAF-BGR	2C-1.2 3M 1 FT K N	3M EN 166 FT CE
S2005SGAF-BGR	5-2.5 3M 1 FT K N	3M EN 166 FT CE
S2007SGAF-BGR	5-1.7 3M 1 FT K N	3M EN 166 FT CE
S2024AS-RED	5-3.1 3M 1 FT	3M EN 166 FT CE
S2001ASP-BLU	2C-1.2 3M 1 FT K	3M EN 166 FT CE
S2001AF-BLU	2C-1.2 3M 1 FT	3M EN 166 FT CE
S2017ASP-BLK	1.7 3M 1 FT K	3M EN 166 FT CE
S2030ASP-BLK	3 3M 1 FT K	3M EN 166 FT CE
S2050ASP-BLK	5 3M 1 FT K	3M EN 166 FT CE
S2015AF-BLU	2C-1.2 3M 1 FT	3M EN 166 FT CE
S2020AF-BLU	2C-1.2 3M 1 FT	3M EN 166 FT CE
S2025AF-BLU	2C-1.2 3M 1 FT	3M EN 166 FT CE



Explanation of marking

Marking	Description
2C-1.2 (EN 170:2002)	UV protection with good colour recognition. This product conforms to the requirements of the standard, providing UV protection for the complete specified range (210nm – 365nm)
5-1.7 and 5-3.1 (EN 172:1994 (as amended))	Sun-glare protection conforming to the requirements of the standard, providing UV protection for the complete specified range (280nm – 350nm)
1.7, 3.0 and 5.0 (EN 169:2002)	Welding lens providing protection against UV for the specified range (210nm to 365nm) and IR protection for the specified range (780nm to 2000nm)
1	Optical class
F	Impact protection against high speed particle at low energy (45m/s)
T	Tested for impact protection at extreme temperature conditions -5°C and +55°C
K	Resistance to surface damage by fine particles
N	Resistance to fogging
+1.5	Power of magnification (diopters)
+2.0	Power of magnification (diopters)
+2.5	Power of magnification (diopters)

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 competent professional. Before any use of this product it is recommended to complete some trials to validate the performance of the product within its expected application.

All information and specification details contained within this document are inherent to this specific 3M product and would not be applied to other products or environment. Any action or usage of this product made in violation of this document is at the risk of the user.

Compliance to the information and specification relative to the 3M product contained within this document does not exempt the user from compliance with additional guidelines (safety rules, procedures). Compliance to operational requirements especially in respect to the environment and usage of tools with this product must be observed. The 3M group (which cannot verify or control those elements) would not be held responsible for the consequences of any violation of these rules which remain external to its decision and control.

Warranty conditions for 3M products are determined with the sales contract documents and with the mandatory and applicable clause, excluding any other warranty or compensation.

For more information on 3M products and services please contact 3M.