



2840 Comfort Line Safety Spectacles

2840 (Clear), 2841 (Smoke), 2842 (Yellow),
2844 (Light gold mirror) and 2845 (Shade 5).



Technical Fact Sheet

Description

The 3M 2800 Series Premium range safety spectacles comprise of clear, smoke, yellow, light gold mirror and shade 5 lenses for a variety of industrial applications.

These products are available in 5 lens options: clear, yellow for improved contrast in low light conditions, smoke for protection against sun glare, light gold mirror for indoor/outdoor work, and IR5 (infra red shade 5) for certain gas welding/cutting and brazing applications.

Intended Use

These products are intended for protection against high speed particles at low energy (F) at extreme temperature conditions, -5°C and +55°C, (T) in accordance with EN166:2001. They also protect against UV radiation in accordance with EN170:2002, sun glare in accordance with EN172:2002 (3M 2841 only) and Infrared Radiation in accordance with EN169:2002 (3M 2845 only).

NOTE: The 2845 is NOT intended for electric arc welding such as MIG, TIG, MMA, Air Carbon and Plasma Arc which usually require darker lens shades. If you are unsure, contact 3M for further advice.

Key Features

- Optical class 1 lens for highest optical clarity and extended wear time
- Adjustable lens angle (via temple pivot) for individual fit
- Adjustable temple length (4 positions) for wearer comfort and optimal fit
- Strong polycarbonate lens with anti-scratch and anti-fog coating for improved vision and extended durability (except 2844- this features anti-scratch coating only)
- Integrated brow guard for increased protection
- Lightweight (26g)
- Soft inner padding on temple for increased wearer comfort and stability when worn

Applications

These products can be used in a wide range of industrial applications including:

- Construction
- Automotive & body shop repair
- Wood working
- Industrial manufacturing
- Certain gas welding & metal brazing applications
- DIY

Standards and Approval

These safety spectacles have been shown to meet the basic safety requirements under Article 10 of the European Community Directive 89/686/EEC and are thus CE marked.

These products have been examined at the design stage by INSPEC International Ltd., Upper Wingbury Courtyard, Wingrave, Aylesbury, Buckinghamshire HP22 4LW (Notified Body number 0194).

These products are tested and CE approved against EN166:2001 1 FT. The 2845, meets additional requirements of EN169:2002 for protection against Infrared Radiation, and is therefore marked according to this standard.

Marking

The lens and frame are marked in accordance with the requirements of EN166:2001, and associated standards including EN170:2002 (for UV protection), EN172:2002 (for sun glare protection) and EN169:2002 (for shade 5 gas welding lens).

Example of lens marking:-

Filter code & scale number for UV protection:	2C-1.2 (as per EN170:2002)
Manufacturer's identification:	3M
Optical Class:	1
Symbol for mechanical strength:	F (low energy)

Marking

Example of frame marking:-

Manufacturer's identification:	3M
Product reference:	2840
European Standard:	EN166
Symbol for resistance to high speed particle test at extremes of temperature	FT (low energy)

Materials Listing

Lens:	Polycarbonate
Temples:	Polycarbonate and Thermoplastic Elastomer (TPE)

Explanation of filter code and scale numbers

Please see the table below for further information.

Use limitation

- Never modify or alter this product
- Do not use this product against hazards other than those specified in this document/product user instructions.
- These products are not suitable for grinding.
- In accordance with EN166:2001 safety spectacles cannot be tested and approved for use against liquid droplets. Where liquid protection is specified a suitable product should be considered, for example safety goggles.

Product	Lens Option	Lens Marking	Explanation	Comments
2840	Clear	2C-1.2	2C: UV Filter code. 1.2: Scale number.	Colour recognition not affected. For use with sources which emit predominantly ultra violet radiation at wavelengths shorter than 313nm and when glare is not an important factor. This covers the UVC (280nm – 313nm) and most of the UVB (100nm - 280nm) bands.
2841	Smoke	5-2.5	5: Filter code for sun glare. 2.5: Shade	Good colour differentiation under sunlight, helps reduce eye fatigue under glare condition.
2842	Yellow	2-1.2	2: UV Filter code. 1.2: Scale number.	Colour recognition may be affected. For use with sources which emit predominantly ultra violet radiation at wavelengths shorter than 313nm and when glare is not an important factor. This covers the UVC (280nm – 313nm) and most of the UVB (100nm - 280nm) bands.
2844	Light gold mirror	5-1.7	5: Filter code for sun glare; 1.7 is shade number.	Shows good colour recognition.
2845	Shade 5	5	Filter code for protection against IR according to EN169:2002	Absorbs 99.5% IR. Not suitable for driving.

Accessories

3M 270:	Anti-fog wipe	3M 272:	Premium neck cord - with safety break
3M 271:	Simple neck cord	3M 273:	Soft carry bag for spectacles

Light Transmission and Absorption Data

Product	Lens Shade	% UV Light absorption (180nm – 380nm)	% Visible light transmission (380nm – 780nm)	% Infra Red light absorption (780 – 1100nm)
2840	Clear	99.9	92.8	4.8
2841	Smoke	99.9	18.5	60.0
2842	Yellow	99.9	92.8	5.0
2844	Light gold mirror	99.9	53.2	37.8
2845	Shade 5	99.9	2.4	99.5



Occupational Health & Environmental Safety Group

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