



2800 Series Safety Over-Spectacles

2800 (Clear) and 2805 (Shade 5)



Technical Fact Sheet

Description

The 3M 2800 Safety Over-Spectacles are designed to fit over most users' prescription spectacles with minimal interference. Very lightweight for the category (only 38g), they are available in 2 lens options: clear light and IR5 (infra red Shade 5) for certain gas welding/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.

The 2805 offers protection against Infrared radiation arising from certain gas welding, gas cutting and brazing applications.

NOTE: The 2805 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
- Very lightweight for the category (38 g)
- Adjustable temple length (4 positions)
- Adjustable lens angle (via temple pivot) for individual fit
- Strong polycarbonate lens featuring anti-scratch coating for improved vision and extended durability
- Soft low profile temples for comfort and minimum interaction with prescription spectacles

Applications

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

- Construction
- Automotive & body shop repair
- Wood working
- Certain gas welding applications
- Engineering

Standards and Approval

These safety over-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 BSI Product Services, Maylands Avenue, Hemel Hempstead, Herts, England (Notified Body number 0086).

These products are tested and approved to EN166:2001 1 FT. In addition, the 2805 meets the requirements of EN169:2002 and EN171:2002 for IR protection. The 2805 absorbs 99.5% IR radiation.

Marking

The lens and frame are marked in accordance with the requirements of either EN166:2001, EN170:2002 or EN171:2002 (for 3M 2805).

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:	2800
European Standard:	EN166

Symbol for resistance to high speed
particle test at extremes of temperature FT (low energy)

Explanation of filter code and scale numbers

Please see the table below for further information.

Product	Lens Option	Lens Marking	Explanation	Comments
2800	Clear	2C-1.2	2C: UV Filter code. 1.2: Scale number.	Colour recognition not affected. For use with sources which emit predominantly UV radiation at wavelengths shorter than 313nm and when glare is not an important factor. This covers UVC (280nm – 313nm) and most of the UVB (100nm – 280nm) bands.
2805	Shade 5	4-5	4: Filter code 5: Scale number - in accordance with EN171:2002	For protection against IR. Absorbs 99.5% IR. Not suitable for driving.

Light Transmission and Absorption Data

Product	Lens Shade	% UV Light absorption (180nm – 380nm)	% Visible light transmission (380nm – 780nm)	% Infra Red light absorption (780 – 1100nm)
2800	Clear	99.9	91.1	6.0
2805	Shade 5	99.9	0.85	99.5

Materials Listing

Lens: Polycarbonate

Temples: Nylon

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.

Accessories

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



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