



Technical Fact Sheet

3M™ Refine 300 – Safety Spectacles

71507-00000M Refine 300 (clear lenses)

71507-00001M Refine 300 (bronze lenses)

Product Description:

The new 3M Refine 300 Safety Spectacles are particularly designed to suit female wearer. The low profile streamline design features side protection for improved safety. The new design offers excellent coverage and field of vision. These products are available in either clear or bronze lens in either blue or mocha frame respectively which makes them an ideal choice for younger wearer. The bronze lenses help protect against sunglare.

Intended Use:

These products are intended for protection against high speed particles at low energy (F) at extreme temperature conditions, -50°C and +55°C, (T) in accordance with EN166:2001. They also protect against UV radiation in accordance with EN170:2002, and sun glare in accordance with EN172:1994 (bronze lens only).

The new Refine 300 range includes products which are designed for use in different environment including outdoor where additional protection against sun glare is a key factor.

Key Features:

- Optical class 1 lens for high optical clarity and extended wear time.
- Very lightweight (25g) for maximum comfort
- Streamline wrap-around design for excellent coverage and good field of vision
- Strong polycarbonate lenses featuring anti-scratch and anti-fog coating for improved vision and extended durability.
- Adjustable soft nose bridge for improved comfort and wearability.

Applications

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

- Hospital / dental
- General laboratory
- Electronic component manufacture
- General assembly
- Industrial manufacturing
- 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 IN-SPEC International Ltd., 56 Leslie Hough Way, Salford, Greater Manchester, M6 6AJ, United Kingdom (Notified Body number 0194).

These products are tested and CE approved against EN166:2001.

Marking:

The lens and frame are marked in accordance with the requirements of EN166:2001, and associated standards including EN170:2002 (for UV protection) and EN172:1994 (for sun glare protection).

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: FT
(high speed impact, low energy)

Example of frame marking:

Manufacturer's identification: 3M
Product reference: Refine 300
European Standard: EN166
Symbol for resistance to high speed
particle test at extremes of temperature: FT
(high speed impact, low energy)

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Explanation of filter code and scale numbers:

Please see the table below for further information.

Product	Lens Option	Lens Marking	Explanation	Comments
Refine 300	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.
Refine 300	Bronze	5-3.1	5: Filter code for sun glare. 3.1: Scale number.	Good colour differentiation under sunlight, helps reduce eye fatigue under glare condition. Improves acuity in high light levels.

Materials Listing:

Lens: High Impact Polycarbonate
Frame: Polycarbonate-Polyester
Temples: Polycarbonate-Polyester
Nose Bridge: NickelSilver metal wire,
Thermoplastic Elastomer Pads

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.
- 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.
- These products are NOT designed to be worn over prescription spectacles.

Light transmission and absorption data

3M Product	Lens Color	Lens Scale	% UV Light absorption (210nm – 313nm)	% UV Light absorption (313nm – 365nm)	% Visible light transmission
Refine 300	Clear	2C-1.2	99.99	99	92.8
Refine 300	Bronze	5-3.1		99.6	19



Occupational Health Group
3M United Kingdom
3M Centre
Cain Road, Bracknell
Berkshire, RG12 8HT
Tel: 0870 60 800 60
www.3M.co.uk/ohes

3M Ireland Limited
The Iveagh Building
The Park
Carrickmines
Dublin 18
Tel: 1 800 320 500

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