

Technical Datasheet



3M™ Virtua™ AP- Safety Spectacles

Product Description

The new 3M™ Virtua AP Safety Spectacles feature sleek unisex styling designed to appeal both male and female wearers. The wrap around design features integral side shield for improved safety and greater protection. The new design offers excellent coverage and field of vision. These products are available in either clear or grey lenses. The grey lenses help protect against sun glare. Tested and CE Approved to EN 166:2001+A1:2009.

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, and sun glare in accordance with EN172:1994 (grey lenses only).

The new 3M™ Virtua AP range includes products which are designed for use in different environments 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.
- Sleek unisex stylish design.
- Integrated brow bar for added protection.
- Lightweight (26g) for maximum comfort.
- Streamline wrap-around design for excellent coverage and good field of vision.
- Strong polycarbonate lenses featuring anti-scratch coating for improved vision and extended durability.

Applications

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

- Industrial manufacturing
- Construction
- Engineering
- General assembly
- Woodworking
- 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., 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: Virtua AP
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
Virtua™ AP	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.
Virtua™ AP	Grey	5-2.5	5: Filter code for sun glare. 2.5: Scale number.	Good colour differentiation under sunlight, helps reduce eye fatigue under glare condition. Improves acuity in high light levels.

Materials Listing

Component	Material
Lenses	Polycarbonate
Frame	Polycarbonate
Temples	Polycarbonate
Integrated Nose Bridge	Polycarbonate

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.

Product Range



71512-00000M
3M™ Virtua™ AP (clear lenses)



71512-00001M
3M™ Virtua™ AP (grey lenses)

Light transmission and absorption data

3M Product	Lens Color	Lens Scale	% UV Light absorption (210nm – 313nm)	% UV Light absorption (313nm – 365nm)	% Visible light transmission
Virtua™ AP	Clear	2C-1.2	99.99	99	90
Virtua™ AP	Grey			99.9	21

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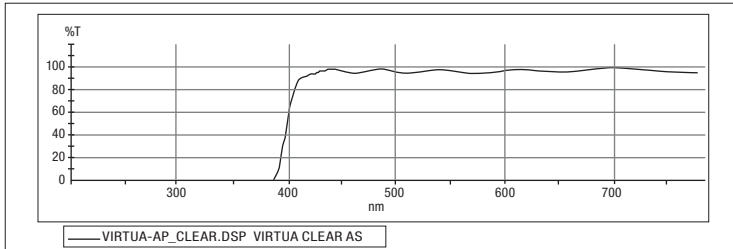


Transmission Curves

Virtua TM AP- Luminous Transmittance (Clear Lens)

VIRTUA AP CLEAR AS

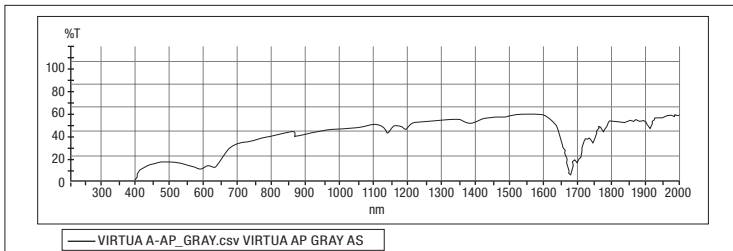
Lambda 1050



Virtua TM AP- Luminous Transmittance (Grey Lens)

VIRTUA AP GRAY AS

Lambda 1050



Luminous Transmittance EN 172:1994: 15.162 %

Maximal Spectral Transmittance 280-315 nm (EN 172:1994): 0.01 %T

Maximal Spectral Transmittance 315-350 nm (EN 172:1994): 0.01 %T

Average Spectral Transmittance 315-380 nm (EN 172:1994): 0.00 %T

Minimal Spectral Transmittance 500-650 nm (EN 172:1994): 12.23 %T

Q Factor RED (EN 1836:2005; AS/NZS 1067:2003): 1.012

Q Factor YELLOW (EN 1836:2005; AS/NZS 1067:2003): 0.947

Q Factor GREEN (EN 1836:2005; AS/NZS 1067:2003): 1.043

Q Factor BLUE (EN 1836:2005; AS/NZS 1067:2003): 1.148

Important Notice

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