



**Speedglas™**  
Welding Safety



# Technical Datasheet

## 3M™ Speedglas™ Welding Filter Series G5-01

### Product Description

#### 3M™ Speedglas™ Welding Filter G5-01TW

##### Part no 61 00 20

- Tack welding mode
- Light state shade 3
- Dark state 8-13
- Optical class 1/1/1/1
- 3M™ Speedglas™ Natural Colour Technology
- Easy access to CUT mode shade 5
- Locked dark state 8-13
- Two step recovery
- Four photo sensors
- Bluetooth™ enabled ADF
- Automatic ON/OFF

#### 3M™ Speedglas™ Welding Filter G5-01VC

##### Part no 61 00 30

- Variable filter Colours
- Light state shade 3
- Dark state 8-14
- Optical class 1/2/1/2
- 3M™ Speedglas™ Natural Colour Technology
- Easy access to CUT mode shade 5
- Locked dark state 8-14
- Two step recovery
- Four photo sensors
- Bluetooth™ enabled ADF
- Automatic ON/OFF

### Applications

The product helps protect the wearer's eyes and face from sparks, spatter, harmful ultraviolet radiation (UV) and infrared radiation (IR) resulting from certain arc gas welding processes. The welding helmet also protects against certain airborne contaminants when used with an approved air delivery unit.

The Speedglas heavy duty welding helmet G5-01 is designed for:

- Most welding processes, such as: MMA (Stick), MIG/MAG, TIG, Low amp TIG
- Cutting

### Approvals

The PPE is marked and in conformity with the applicable National and European Regulations, Directives and Standards as listed in table below, which also contains information about the Authorised Body that has issued the type-Examination certificate for the PPE (Module B) and when applicable, the Authorised Body responsible for the surveillance of the quality system of the manufacturing of the PPE (Module D). The applicable type-examination Certificates and Declaration of Conformity are available at [www.3M.com/welding/certs](http://www.3M.com/welding/certs).

Standard	Name
EN 166:2001	Personal eye-protection – Specifications
EN 379:2003 + A1:2009	Personal eye-protection – Automatic welding filters
Directive/Regulation	Name
(EU) 2016/425	Personal Protective Equipment (PPE) Regulation
	Personal Protective Equipment Regulations (Regulation 2016/425 on personal protective equipment, as amended to apply in GB)
2014/30/EU	Electromagnetic Compatibility (EMC) Directive - Electromagnetic Compatibility
	Electromagnetic Compatibility Regulations 2016
2011/65/EU	Restriction of the Use of Certain Hazardous Substances (RoHS) Directive
	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012
2014/53/EU	Radio Equipment Directive (RED)
	Radio Equipment Regulations 2017
Notified Body No. 0196 Module B	DIN CERTCO Gesellschaft fuer Konformitaetsbewertung mbH, Albinstrasse 56, 12103 Berlin, Germany
Approved Body No. 2571 (Module B)	TUV Rheinland UK, Friars Gate (Third Floor), 1011 Stratford Road, Shirley, Solihull B90 4BN, UK
Australian/ New Zealand Standard	Name
AS/NZS 1338.1:2012	Filters for eye protectors Part 1: Filters for protection against radiation generated in welding and allied operations
BMD-350: IC approval 12208A-05	BMD-350: IC approval 12208A-05 This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
Manufacturer	3M Svenska AB, Ernst Hedlunds väg 35, 785 30 Gagnef, Sweden
EU Contact Address	3M Svenska AB, Ernst Hedlunds väg 35, 785 30 Gagnef, Sweden
UK Contact Address	3M UK, Cain Rd, RG12 8HT, UK



= Auto darkening welding filters shall be disposed of as electrical and electronic waste

### Limitations of use

- Only use with original 3M spare parts and accessories listed in the reference leaflet and within the usage conditions given in the Technical Specification
- The use of substitute components, decals, paint or other modifications not specified in these user instructions might seriously impair protection and may invalidate claims under the warranty or cause the product to be noncompliant with protection classifications and approvals.
- Use only with welding shields listed in the reference leaflet

- Eye protectors worn over standard ophthalmic spectacles may transmit impacts thus creating a hazard to the wearer.
- Use of this product in applications outside its intended use, such as laser welding/cutting, may result in permanent eye injury and vision loss.
- Should the product fail to switch to the dark state in response to an arc, stop welding immediately and inspect the welding filter as described in the instructions. Continued use of a welding filter that fails to switch to the dark state may cause temporary vision loss. If the problem cannot be identified and corrected, do not use the welding filter, contact your supervisor, distributor or 3M for assistance.

Flashing light sources (i.e. flash tube strobe lights, safety warning lights, etc.) can trigger the welding filter to start blinking even though no welding is occurring. The blinking will occur whilst in light state, the dark state will remain unaffected. This interference can occur from long distances and/or from reflected light. Welding areas should be shielded from such interference.

## Materials

Welding filter:	PA, GF
Protection/cover plate:	PC
Front frame:	PPA

## Technical specifications

### Speedglas Welding Filter G5-01TW

Weight:	182 g
Viewing area:	73 x 109 mm
UV/IR protection:	According to shade number 13 (permanent)
Light state:	Shade no 3
Dark state:	Shade no 8-13
CUT mode:	Shade 5
Switching time light to dark:	0.1 ms (+23°C)
Opening time dark to light:	50 - 1300
Fail safe state:	Shade no 5
Battery life:	1500 hours
Battery type:	1 x CR2450 (Lithium 3V)

### Speedglas Welding Filter G5-01VC

Weight:	206 g
Viewing area:	73 x 109 mm
UV/IR protection:	According to shade number 14 (permanent)
Light state:	Shade no 3
Dark state:	Shade no 8-14
CUT mode:	Shade 5
Switching time light to dark:	0.1 ms (+23°C)

Opening time dark to light:	50 - 1300
Fail safe state:	Shade no 7
Battery life:	1500 hours
Battery type:	1 x CR2450 (Lithium 3V)
Operating conditions:	-5°C to +55°C, RH ≤ 90%, non-condensing conditions.

### Storage conditions

Welding filter without batteries: -30°C to +70°C, RH ≤ 90%, non-condensing conditions.

### Storage conditions

Lithium batteries: -30°C to +60°C, RH ≤ 75%, non-condensing conditions

### Extended period of storage

Welding filter without batteries: -20°C to +55°C, RH ≤ 90%, non-condensing conditions.

### Extended period of storage

Lithium batteries: +10°C to +25°C, RH ≤ 60%, non-condensing conditions.

Expected service life: 5 years depending on conditions of use

## Spare parts, accessories and consumables

52 60 00	Outer protection plate, standard, pkg of 10
52 70 00	Outer protection plate, scratch resistant, pkg of 10
52 70 01	Outer protection plate, extra scratch resistant, pkg of 10
52 70 70	Outer protection plate, heat resistant, pkg of 10
52 80 25	Inner cover plate (117x77 mm) pkg of 5
52 80 26	Inner cover plate (117x77 mm) +1 shade, pkg of 3
52 80 27	Inner cover plate (117x77 mm) +2 shade, pkg of 3
61 05 01	Front frame
60 20 00	Battery Lithium 3V CR 2450 pkg of 1
60 10 00	Battery holder
17 10 20	Magnifying lens 1.0
17 10 21	Magnifying lens 1.5
17 10 22	Magnifying lens 2.0
17 10 23	Magnifying lens 2.5
17 10 24	Magnifying lens 3.0
17 20 35	Magnifying lens holder
79 01 05	Carry Bag

## 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.

