

# **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<sup>™</sup> Speedglas<sup>™</sup> Natural Colour Technology
- Easy access to CUT mode shade 5
- Locked dark state 8-13
- · Two step recovery
- Four photo sensors
- Bluetooth<sup>™</sup> enabled ADF
- Automatic ON/OFF

# 3M<sup>™</sup> Speedglas<sup>™</sup> 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<sup>™</sup> Speedglas<sup>™</sup> 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.

Standard	Name
EN 166:2001	Personal eye-protection – Specifications
EN 379:2003 + A1:2009	Personal eye-protection – Automatic welding filters
DiE	Name
Directive/Regulation	
(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	DIN CERTCO Gesellschaft fuer Konformitaetsbewertung mbH, Alboinstrasse 56
Module B	12103 Berlin, Germany
Approved Body No. 2571 (Module	TUV Rheinland UK, Friars Gate (Third Floor), 1011 Stratford Road, Shirley,
B)	Solihul B90 4BN. UK
-1	
Australian/ New Zealand Standard	Name
AS/NZS 1338.1:2012	Filters for eve protectors Part 1: Filters for protection against radiation generated
	in welding and allied operations
	III II CHAING AT IN ARTHUR OPERATORS
BMD-350:	BMD-350: IC approval 12208A-05
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 brouillag
	radioélectrique subi, même si le brouillage est susceptible d'en compromettre le
	onctionnement.
	OROGO MEMBER.
Manufacturer	3M Svenska AB, Ernst Hedlunds väg 35, 785 30 Gagnef, Sweden
	3M Svenska AB. Ernst Hedlunds väg 35, 785,30 Gagnet. Sweden
	3M Svenska AB, Ernst Hedlunds väg 35, 785 30 Gagnef, Sweden 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:  $1 \times CR2450$  (Lithium 3V) Operating conditions:  $-5^{\circ}C$  to  $+55^{\circ}C$ , RH  $\leq 90^{\circ}$ ,

non-condensing conditions.

Storage conditions

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

non-condensing conditions.

Storage conditions

79 01 05

Lithium batteries:  $-30^{\circ}$ C to  $+60^{\circ}$ C, RH  $\leq 75^{\circ}$ ,

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:  $+10^{\circ}$ C to  $+25^{\circ}$ C, RH  $\leq 60^{\circ}$ ,

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 1
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

Carry Bag

3M™ Speedglas™ Welding Filter Series G5-01

#### **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.

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