



uvex

A clear view on EN ISO 16321-1:2022
Making the new protective
eyewear standards simple

AMENDMENT 1 2024-07

protecting people



Introduction

Since 2001, EN 166:2001 has been used for CE and UKCA certification of safety eyewear in the European Union and United Kingdom.

It is now being replaced by EN ISO 16321 – a new set of international standards that will bring some significant changes to product requirements and test methods.

This guide provides the key information you need to know about the new ISO standard to ensure you can remain compliant and provide effective eye protection to keep your workplace safe.

Introducing the new ISO standard

When does it come into force?

EN ISO 16321 was officially published as the replacement for EN 166 in May 2023. The legal adoption date is 11th November 2025 and only products that meet its standards may be tested and certified by official bodies from this date onwards.

However, existing EN 166 certificates which are often used for CE/UKCA markings, will remain valid until their official expiry date up to a maximum of five years. This means, for example, that any products certified or recertified according to EN 166 by 11th November 2025 can be sold legally by manufacturers until 11th November 2030. There is no end date for distributors to have sold their EN-certified products by.

Early amendments to the new standard

It is common for minor adjustments or updates to be made in the initial years following the introduction of a new standard. Such changes are intended to clarify requirements, address any unforeseen issues, or refine definitions as stakeholders adapt to the revised framework.

For instance, an amendment (AMENDMENT 1 2024-07) to EN ISO 16321 is currently awaiting its official publication by the European Commission. This demonstrates the ongoing process of fine-tuning the standard to ensure its effectiveness and relevance in the marketplace.

Where will it apply?

The new ISO standard will become the official standard in many of the world's leading PPE markets, including the European Union and the UK.

Why is the standard changing?

- **Rationale for updating the EN standard**

The EN standard for personal eye protection has been in use for over two decades. Over this period, the nature of workplace hazards has evolved, with new risks such as exposure to blue light emerging. Simultaneously, existing risks have been re-evaluated to ensure that safety measures remain relevant and effective.

- **Ensuring enhanced safety and durability**

The publication of a new standard was necessary to achieve higher levels of safety and durability for safety eyewear, particularly in environments where hazards are diverse and challenging. This update aims to improve protection against a broader range of risks, including mechanical, chemical, and optical hazards. Furthermore, it places a greater emphasis on user comfort and wearability, recognising the importance of long-term usability for workers.



- **Global harmonisation and adoption**

By transitioning from an EN standard to an ISO standard, the revised requirements can now be adopted internationally. This move enables global harmonisation of safety standards, fostering greater consistency in product markings across different countries. Ultimately, this process will help to establish universal minimum standards for safety eyewear, ensuring a higher level of protection for workers worldwide.

Overview of the key changes

EN ISO 16321 comprises EN ISO 16321-1:2022, EN ISO 16321-2:2021 and EN ISO 16321-3:2022. It introduces numerous changes from EN 166 regarding safety features and testing requirements.

It will involve new certificates and changes in labelling, markings, instructions and packaging for all safety eyewear.

The ISO standard includes new safety requirements and new optional features. In some cases, the new standard demands a higher level of protection. In others, the standards become less stringent.

In the context of EN ISO 16321 compared to EN 166, "less stringent" means that certain requirements have been relaxed or redefined, resulting in lower mandatory thresholds or the removal of some obligations that were present in the previous standard. Specifically, EN ISO 16321 narrows its scope to apply only to plano and prescription safety eyewear for occupational use and use in educational establishments. It expressly excludes several categories previously covered by EN 166, such as face protectors for live-working against electric arcs, laser protectors, sports eyewear, medical protectors, protectors intended solely for solar radiation, and those for ionising radiation.

The most significant changes are outlined in greater detail in the following pages:

EN Standard	ISO Standard	Summary
EN 166 Personal eye protection specifications: EN 170 Ultraviolet filters EN 171 Infrared filters EN 172 Solar radiation filters	EN ISO 16321-1:2022 Eye and face protection for occupational use - Part 1: General requirements EN ISO 16321-1:2022 Part 6.3.1 EN ISO 16321-1:2022 Part 6.3.2 EN ISO 16321-1:2022 Part 6.3.3	EN ISO 16321 and related parts only apply to plano and prescription glasses for occupational use or use in educational establishments. It excludes face protectors intended for live-working to protect against short-circuit electric arcs, laser protectors, sports eyewear, protectors for use during medical applications, protectors for medically prescribed applications, protectors specifically intended for protection against solar radiation only or protectors intended to protect against ionising radiation.
EN 169 Filters for welding and related techniques.	EN ISO 16321-2:2021 Eye and face protection for occupational use — Part 2: Additional requirements for protectors used during welding and related techniques	The new EN ISO 16321-2 standard is broader than EN169 as it applies to complete eye and face protectors used in welding and similar techniques. It includes additional considerations such as frame design and materials suitable for withstanding welding heat and sparks, compatibility with respiratory equipment.
EN 1731 Mesh-type eye and face protectors for industrial and non-industrial use against mechanical hazards and heat.	EN ISO 16321-3:2022 Eye and face protection for occupational use — Part 3: Additional requirements for mesh protectors	Used alongside EN ISO 16321-3:2022, this standard defines the requirements for mesh eye and face protectors which protect against mechanical hazards like flying particles and debris. Notably, a key difference from the older EN 1731:2006 standard lies in the mesh design, particularly the aperture count.
EN 167 Personal eye protection - optical test methods	EN ISO 18526-1:2020 Eye and face protection - Test methods Part 1:	The EN 167 standard focuses on optical testing methods for eye protection lenses, whereas the EN ISO 18526-1:2020 is a broader standard

	Geometrical optical properties	focusing on geometrical optical testing methods for a wider range of eye and face protection.
EN 170 Ultraviolet filters EN 171 Infrared filters EN 172 Solar radiation filters	EN ISO 18526-2:2020 Eye and face protection — Test methods — Part 2: Physical optical properties (Filters)	The new ISO 18526-2:2020 standard provides a single source of information for testing all types of filters. It uses more advanced testing methods and promotes consistency across different types of eye and face protection.
EN 168 Personal eye protection - non-optical test methods	EN ISO 18526-3:2020 Eye and face protection — Test methods — Part 3: Physical and mechanical properties	The new ISO standard covers more test methods for both eye and face protection building upon EN168 with a wider range of tests including specific hazards like splashes of molten metals, chemicals, or hot liquids. It also covers the complete eye protector and not just the lens.
-	EN ISO 18526-4:2020 Eye and face protection — Test methods — Part 4: Headforms	Tests eyewear on six different head and facial sizes intended to replicate 95% of the world's population.

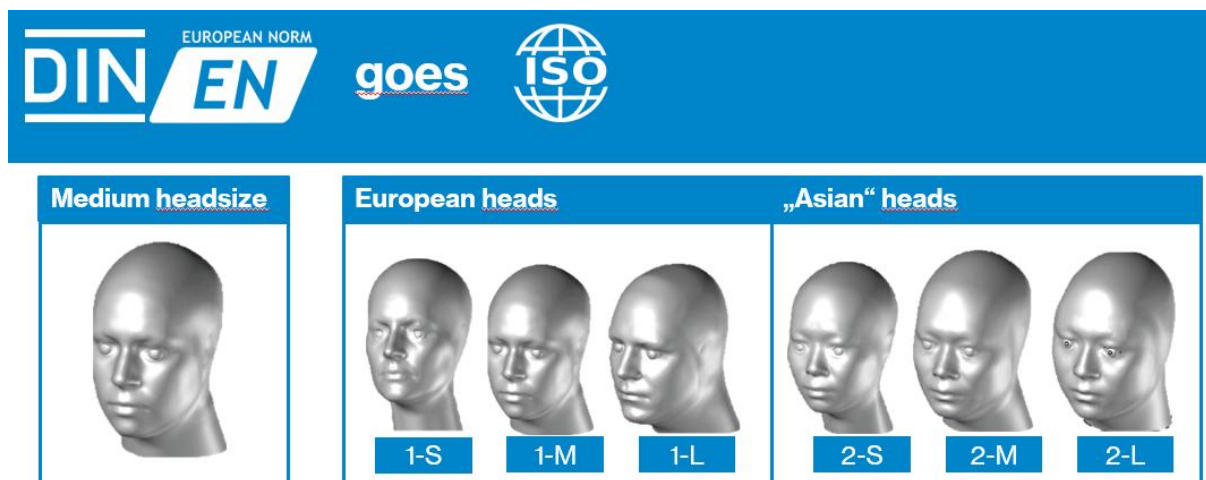
Safety requirements

Headforms:

The biggest change in the new ISO standard concerns headforms. Head shapes and sizes can differ significantly from person to person. EN 166 specified only medium and small headforms, with the vast majority of testing carried out on the medium size. This approach all too frequently led to a one-size-fits-all approach to safety eyewear that compromised workers' comfort and their equipment's performance.

ISO 16321 covers six different options which, following extensive international research, represents around 95% of head shapes and sizes of the world's population. Manufacturers must carry out tests based on the fit and coverage area of the specific headform. If a product is certified only to size M no marking is required on the product. However, if a product fits multiple head sizes the marking denoting this can be found on the product and/or on the product's packaging.

	Small	Medium	Large
European heads	1-S	1-M	1-L
Asian heads	2-S	2-M	3-L



At uvex, we have always made it a priority to provide PPE that fits. We already run a highly successful eyewear fit programme that considers the employee's facial features, work environment and personal requirements, including compatibility with other PPE.

Our current range includes a broad array of options to suit different head forms and we are planning to secure multiple certifications in line with the ISO 16321 standard. This will include premium adjustable models with innovative features to ensure the ultimate close fit as well as models that are available in different sizes.

Mechanical strength

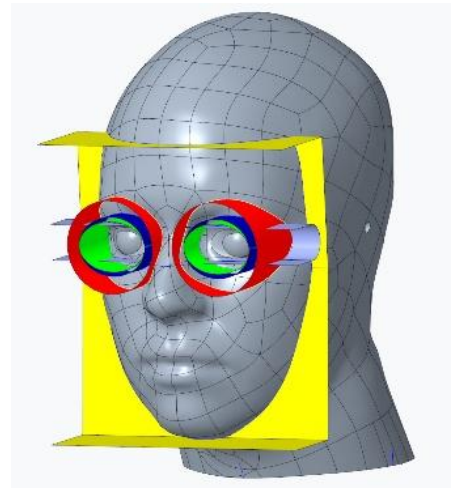
Mechanical strength, otherwise known as the impact strength, is crucial in safety eyewear to protect the eyes from potential injuries caused by flying debris, projectiles or other impacts in hazardous work environments. A “bullet test” is carried out to determine the mechanical impact resistance against projectiles based on their speed, as measured in metres per second.

In the old EN166:2001 standard there were different levels of impact resistance ranging from increased robustness in the drop ball test (level S), low energy impact resistance (level F), medium energy impact resistance applicable for goggles (level B) and high energy impact (level A) used only for face shields.

The new standards introduce three new impact levels (C, D, and E) alongside revised velocity speeds.

The ISO standard also introduces a requirement for “protection zones”, with their sizes determined by the potential speed of the projectiles in the workplace.

- Eyewear under impact level C (blue) must include an orbital protection zone (OPZ).
- Eyewear under impact level D (red) must include an extended orbital protection zone (EOZ).
- Eyewear under impact level E (yellow) must include a face protection zone (FPZ).

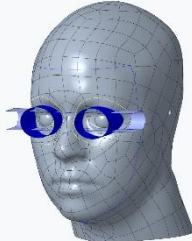
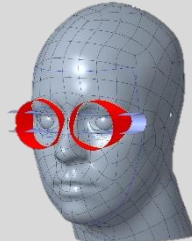
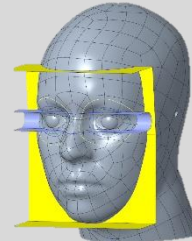


Under EN 166 / EN 168, impact testing used a 22 mm steel ball weighing 43 g, dropped from 1.30 m. Protection zones were not a central part of the classification system, and impact performance was grouped broadly into low, medium and high velocity categories.

Under EN ISO 16321, impact testing uses a larger 25.4 mm steel ball weighing 66.8 g, dropped from 1.27 m.

These "protection zones" outline minimum areas of coverage to protect the wearer. The higher the speed of impact, the larger the protection zone coverage.

EN 166 and EN ISO 16321 are not directly equivalent. EN ISO 16321 changes both the classification model and the coverage requirements, so **this table shows how the framework changes, not a one-to-one conversion.**

Test condition	EN 166 marking	EN ISO 16321 marking	Minimum protection zone under EN ISO 16321	Protection zone visual	What changes under EN ISO 16321
Drop ball test	S	No marking	None specified	-	Basic robustness is treated differently, there is no direct one-to-one marking.
45 m/s	F	C	Orbital protection zone (OPZ)		This level continues at 45 m/s, but now tied to a defined coverage requirement.
80 m/s	Not previously specified	D	Extended orbital protection zone (EOZ)		A new ISO impact level, introduced with a larger required protection zone.
120 m/s	B	Old standard to be phased out	Old standard to be phased out	-	This EN 166 classification will be phased out over the 5 years.
190 m/s	A	E	Face protection zone (FPZ)		The highest impact level remains, but under ISO it is explicitly linked to full face coverage requirements.

m/s = metres per second



Under EN ISO 16321, mechanical testing is no longer tied to fixed product types. Protection is assessed by particle velocity and the coverage needed to prevent injury to the eyes and surrounding area.

This adjustment grants manufacturers greater flexibility for technical innovation, as they are no longer confined by the previously mandated product specifications - such as only spectacles at 45 m/s, only goggles at 120 m/s, and only faceguards at 190 m/s. With the global harmonisation of safety standards, testing criteria are now aligned across regions, ensuring consistent protection requirements, while providing opportunities for innovation in protective eyewear design. It is important to note, however, that EN 166 previously set uniquely high standards for testing, offering a level of scrutiny and safety assurance that was unparalleled.

At uvex, we have our own in-house standards known as the uvex house norms. To guarantee the high quality and integrity of our products, we exceed industry regulations with our own rigorous tests that go beyond the standard requirements. As a result, uvex will continue to test products to the higher speeds of the European impact standard EN 166:2001.

It is important to note that neither EN nor ISO standards address ballistic risks; separate standards and tests, such as STANAG 4296 or MIL-PRF-32432A, apply in these cases. uvex also supplies safety eyewear that have successfully met these ballistic requirements.

Lens filters

Integrated filters in the lens must fulfil a range of requirements to protect the eyes from the various dangers of optical radiation. They may also require additional features, such as the ability to accurately transmit and differentiate colours as required for specific signalling or warning systems.

The protective features under the new ISO standard remain largely the same as under EN 166, but the markings will change.

Ultraviolet protective filters

UV filters are designed to protect the eyes from harmful UV radiation. UV radiation can come from the sun (UVB and UVA radiation) as well as from artificial light sources such as (UVC, UVB and UVA radiation).

UV lens filter marking according to old EN 166/EN170	UV lens filter marking according to new EN ISO 16321-1:2022	Meaning in terms of light transmittance	Lens shade
2-1.2	U1.2	$\geq 74.4\%$ of the visible light is transmitted	Mostly clear or yellow tints
2-1.4	U1.4	Between $<74.4\%$ and $\geq 58.1\%$ of the visible light is transmitted	Mostly lenses with a slight tint like grey or brown for indoor and outdoor work combined
2-1.7	U1.7	Between $<58.1\%$ and $\geq 43.2\%$ of the visible light is transmitted	Mostly lenses with a slight tint like grey or brown for indoor and outdoor work combined
2-2	U2	Between $<43.2\%$ and $\geq 29.1\%$ of the visible light is transmitted	
2-2.5	U2.5	Between $<29.1\%$ and $\geq 17.8\%$ of the visible light is transmitted	Tinted "sunglass" lenses like grey or brown to protect your eyes from 'regular' glare
2-3.1	U3	Between $<17.9\%$ and $>8.5\%$ of the visible light is transmitted	Tinted "sunglass" lenses like grey or brown to protect your eyes from extreme glare
2-4	U4	Between $<8.5\%$ and $\geq 3.2\%$ of the visible light is transmitted	
2-5	U5	Between $<3.2\%$ and $\geq 1.2\%$ of the visible light is transmitted	
2C + filter: compliant for signalling lights (colour recognition)	UL + filter: compliant for signalling lights (colour recognition)		

LIGHT

Lens shade

DARK

Signal recognition remains an optional test under the EN ISO 16321:1:2022 (as it did under EN170) however, it is depicted by the L marking - if it meets the standard, instead of the previous C.

For spectacles where the frame is part of the defined protection zones, the highest filter shade level offered for the spectacle model must also be marked on the frame.

Sunglare filters for occupational use

Sun protection filters are mainly intended to protect the eye from natural glare and the sun's natural UV radiation (UVB and UVA radiation).

Sunglare protection filter marking according to the <u>old</u> EN 166/EN 172	Sunglare protection filter marking according to the <u>new</u> EN ISO 16321-1:2022	Meaning in terms of light transmittance	
5-1.1	G0	$\geq 80\%$ of the visible light is transmitted	
5-1.4	G1	Between $<80\%$ and $\geq 43\%$ of the visible light is transmitted	
5-1.7			
5-2	G2	Between $<43\%$ and $\geq 18\%$ of the visible light is transmitted	
5-2.5			
5-3.1	G3	Between $<18\%$ and $\geq 8\%$ of the visible light is transmitted	
5-4.1	G4	Between $<8\%$ and $\geq 3\%$ of the visible light is transmitted	
5 + filter: compliant for signalling lights (colour recognition) – test was already integrated	GL + filter: compliant for signalling lights (colour recognition), G4 is not compliant with L		

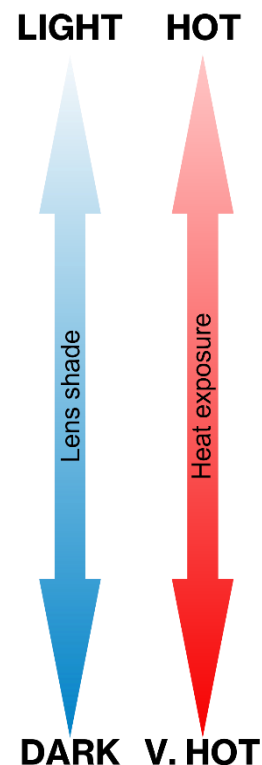
Suggestion: The new amendment, pending publication in the EU's Official Journal, proposes the integration of the additional Light recognition (label L) in alignment with the previous EN standard into the filter type (G), thereby eliminating the requirement for separate labelling of the L

For spectacles where the frame is part of the defined protection zones, the highest filter shade level offered for the spectacle model must also be marked on the frame.

Infrared protective filters

Infrared filters are designed to protect the eyes from heat radiation, such as that emitted by molten glass or metal, fire, and artificial heat emitters. The protection level increases with the average temperature of the heat source. The new ISO standard introduces the option for enhanced infrared reflection, which is marked with an additional R.

Infrared protection filter marking according to the <u>old</u> EN 166/EN 171	Infrared protection filter marking according to the <u>new</u> EN ISO 16321:1:2022
4-1.2	R1.2
4-1.4	R1.4
4-1.7	R1.7
4-2	R2
4-2.5	R2.5
4-3	R3
4-4	R4
4-5	R5
4-6	R6
4-7	R7
4-8	R8
4-9	R9
4-10	R10
	Amended criteria: now 1 requirement for the whole area 780-3000 nm
4C + filter: compliant for signalling lights (colour recognition)	RL + filter: compliant for signalling lights (colour recognition)
-	RR + filter (with increased IR reflection)
-	RRL + filter (with colour recognition and increased IR reflection)



Signal recognition remains an optional test under the EN ISO 16321:1:2022 (as it did under EN171) however, it is depicted by an L if it meets the standard (instead of a C).

For spectacles where the frame is part of the defined protection zones, the highest filter shade level offered for the spectacle model must also be marked on the frame.

Welding filters

The heat and intense brightness created during welding would cause irreparable damage to the eyes without proper protection.

Compliance for signalling lights was not part of the tests under the EN standard but has been introduced under EN ISO 16321-2:2022 as an optional test and is depicted with the L marking. This means that signal colours remain unaffected by the lens shade.

Welding lens filter marking according to the <u>old</u> EN 166/EN 169	Welding lens filter marking according to the <u>new</u> EN ISO 16321:2:2022	
1.2	16321 W1.2	
1.4	16321 W1.4	
1.7	16321 W1.7	
2	16321 W2	
2.5	16321 W2.5	
3	16321 W3	
4	16321 W4	
5	16321 W5	
6	16321 W6	
7	16321 W7	
8	16321 W8	
9	16321 W9	
10	16321 W10	
Compliance for signalling lights (colour recognition) was not part of the tests	WL + filter: compliant for signalling lights (colour recognition)	

For spectacles where the frame is part of the defined protection zones, the highest filter shade level offered for the spectacle model must also be marked on the frame.

- **Electric arc protection in safety eyewear**

Electric arc protection in safety eyewear is essential for individuals working in environments where electric arcs may occur. Visors, in particular, play a crucial role in shielding workers from the hazards associated with electric arcs, which can impact not only the face but also the head. The importance of comprehensive protection is underscored by the risks posed by electric arc incidents, making it strongly recommended to use an electrician's helmet for optimal safety.

- **Changes in standards**

The updated EN ISO 16321-1 standard has brought significant changes to the regulation of electric arc protection in safety eyewear. Notably, the '8' marking previously used under EN 166 has been removed. Electric arc protection is no longer covered under EN 166 in conjunction with GS-ET-29. Instead, the responsibility for regulating eye protection, specifically visors intended for electric arc protection, has shifted to the IEC 62819 standard.

- **Testing and certification during transition**

During the transition period, it is necessary for visors and helmet combinations to be tested and certified according to both ISO 16321 and IEC 62819 standards. The markings applied to these visors will accurately reflect the results of these tests and the specific protective properties they provide. This ensures that individuals receive the appropriate level of protection for their working environment.

- **Recommendations for optimal protection**

For those seeking the highest level of safety in environments where electric arcs are a risk, the use of an electrician's helmet is strongly advised. These helmets are specifically designed to offer comprehensive protection, acknowledging that electric arc incidents may affect both the face and the head.

Table B.1 – Protective performance information

B1: example with ELIM, ATPV and U	 ELIM 26 cal/cm ² ATPV 30 cal/cm ² LTC 2 U2 IEC 62819:2022 IEC
B2: example with <i>arc rating</i> , APC and LTC	 ELIM 26 cal/cm ² ATPV 30 cal/cm ² EBT 36 cal/cm ² APC 2 LTC 2 IEC 62819:2022 IEC
B3: example with <i>arc rating</i> , APC, LTC and U	 ELIM 26 cal/cm ² ATPV 30 cal/cm ² EBT 36 cal/cm ² APC 2 LTC 2 U2 IEC 62819:2022 IEC

Optional features

Further markings can be included on eye and face protection where additional safety features are included and meet the testing requirements set out in the ISO standard.

Summary of optional changes includes:

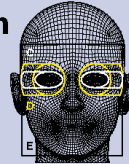
What has changed?

EN ISO 16321 replaces EN 166 as of November 2025 to ensure greater global consistency across industries. Designed to better address current workplace challenges, it features:

- ✓ Enhanced tests
- ✓ Harmonised marking
- ✓ New safety requirements

3 protection zones

instead of restriction to product design / types.



Drop ball test (basic requirement)

- C** Low energy impact 45 m/s
- D** Medium energy impact 80 m/s
- E** High energy impact 120 m/s

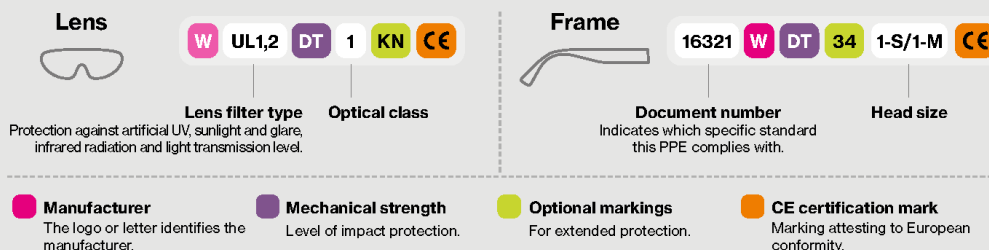
6 sizes available to fit 95% of global head shapes

- 1S** Small (European)
- 1M** Medium (European)
- 1L** Large (European)
- 2S** Small (Asian)
- 2M** Medium (Asian)
- 2L** Large (Asian)

Additional markings : for high-performance protection

	CODE	NEW DESIGNATION	LOCATION
OPTIONAL MARKING	3	Protection against liquids (droplets and splashes)	
	4	Protection against large dust particles with a grain size of >5µm	
	5	Protection against gases, vapours, spray droplets, fumes and particles with a size < 5 µm	
	6	✓ Protection against high-pressure liquid flows (for goggles and visors only)	
	7	✓ Protection against radiant heat (950 K and 1450 K) (for visors only)	
	8	✓ Protection against short-circuit electric arcs (visors only)	
	9	Protection against molten metals and hot solids (visors only)	
	CH	✓ Chemical resistance	
	HM	✓ High mass impact resistance	
	T	Tested at extreme temperatures (-5 °C / +55 °C)	
FILTER MARKING	K	Resistance to surface damage caused by fine particles (scratch resistance)	
	N	Resistance to fogging in accordance with EN ISO 16321	
	U	✓ UV protection filter	
	G	✓ Sun protection filters for occupational use	
	W	✓ Welding filter	
	R	✓ IR protection filter	
	L	✓ Compliant for signal light recognition	

Understanding markings at a glance



Under both the EN and EN ISO standards, **several optional features and markings remain the same**, albeit with slight modifications to some test procedures. The updates in these tests aim to harmonise standards and provide more concrete procedures for manufacturers and test laboratories. These include:

Marking	Feature	Description
K	Resistance to surface damage by fine particles	Plastic is a very impact-resistant lens material but is also very soft and susceptible to scratches. For this reason, almost all safety spectacles are provided with an additional coating that can fulfil different tasks. In this optional test, sand trickles onto the lens and the degree of scratching is then measured in haze percentage. If the haze remains below 8%, the eye protection device qualifies for the marking. Lenses coated with uvex supravision sapphire are extremely scratch resistant on both sides whereas lenses coated with supravision excellence or supravision extreme are scratch resistant on the more dirt-prone outside of the lens and fog-free on the inside of the lens which is prone to fog-up due to sweat etc.
N	Resistance against fogging	Fogged-up glasses pose a safety risk. This test requires lenses to remain fog-free for a minimum of eight seconds when exposed to an atmosphere above 50°C. However, simple anti-fog coatings wash out relatively quickly and become ineffective. For this reason, the lenses are placed in water for 2 hours before the anti-fog test to simulate this premature washing out. Lenses coated with uvex supravision excellence are anti-fog for at least 16 seconds and the coating is permanent and will not wash off even after repeated cleaning. uvex supravision plus coatings provide permanent anti-fog for at least 30 seconds. With uvex supravision extreme or supravision ETC fogging is not possible as the coating does not become saturated.
3	Protection against droplets	Under EN 166, goggles were tested by spraying liquids on frontally. Visors were measured to determine whether the surface was large enough to cover the face, with no liquid testing required. However, under EN ISO 16321-1:2022, the testing method has changed, with the droplets projected onto the visor in all directions.
4	Protection against large dust particles	For extremely dusty activities, very tight-fitting safety eyewear or even full-vision goggles are required.
5	Protection against gases and fine dust particles	Goggles with this marking are often referred to as gas-tight full-vision goggles or full-vision goggles without ventilation.
T	Mechanical strength at extreme temperatures	Materials can behave very differently at extreme temperatures. To ensure sufficient mechanical protection at such temperatures, impact tests can also be carried out with products that have previously been preconditioned to +55°C and -5°C. While this feature was available under the EN standard, the tests now cover four impact levels: C (45m/s), D (80m/s), E (120m/s) and high mass.

Some markings have seen slight changes under the ISO standard with regard to range of eligible products. These include:

Marking	Feature	Description
9	Protection against molten metals and hot solids	This test examines the non-adhesion and rapid penetration of hot, liquid metals on the lens and frame, as can occur when working in the metal industry. This marking no longer applies to goggles as molten metal presents a risk to the entire face. uvex stopped producing goggles in 2021 with the 9 marking for this exact reason.

EN ISO 16321-1:2022 also introduces a range of features that did not appear under EN 166. Some of the **new developments** are featured below:

Marking	Feature	Description
HM	High mass impact	uvex already carries out internal impact tests with high mass in accordance with the requirements of the American standard from which this test is derived. Therefore, uvex will carry out additional certification of high mass for the ISO standard for the time being.
CH	Chemical resistance	Unlike hand protection, there has not yet been an eyewear test procedure that confirms safe use when handling chemicals. The new ISO test involves pouring 100ml of sulphuric acid (30%), sodium hydroxide (10%), P-xylene, 1-Butanol and N-heptane over the full shield including the assembly system, in 10 seconds and then leaving for five minutes. Visible deformation of the protector is not permitted, the image must not be distorted, and the assembly system must still work. Impact is also tested, as is resistance to ignition.
6	Protection against streams of liquids	This marking demonstrates that the protector prevents a high-pressure liquid stream from reaching the eyes of the wearer. Under ISO, this marking can be applied to goggles and visors. uvex will carry out the test for the 3 and 4-marked products as an addition to this marking.
7	Protection against radiant heat	This test is intended to determine whether the protector will protect the wearer's face from radiant heat for a specified time. It only applies to a shield with a headband or helmet with an IR filter. The test is based on studies of typical fire conditions and any damage indicates that it may not protect the wearer's eyes from the radiant heat.
	Use in explosive atmospheres	For protectors that are intended to be used in explosive atmospheres, and if the principal ignition source is electrostatic, the eyewear is tested according to ISO 80079-36:2016, Annex D.

These advancements offer users more specific information about the safety eyewear required for specialised environments.



uvex always sets the standard in safety

We know that changes to standards can be challenging. With the introduction of EN ISO 16321, safety professionals now have to get to grips with a range of new requirements.

There's no need for alarm. If you buy your eyewear from uvex, you're already ahead of the game. We don't just comply with all legally required standards; we produce products to overperform, following safety guidance as an Approved Code of Practice (ACOP) and then waiting for the legislation to catch up.

We design **WEARABILITY** and exceptional safety into every product we produce. Our range includes a vast array of sizes, styles and safety features that not only meet the new ISO standards but frequently go above and beyond the minimum requirements.

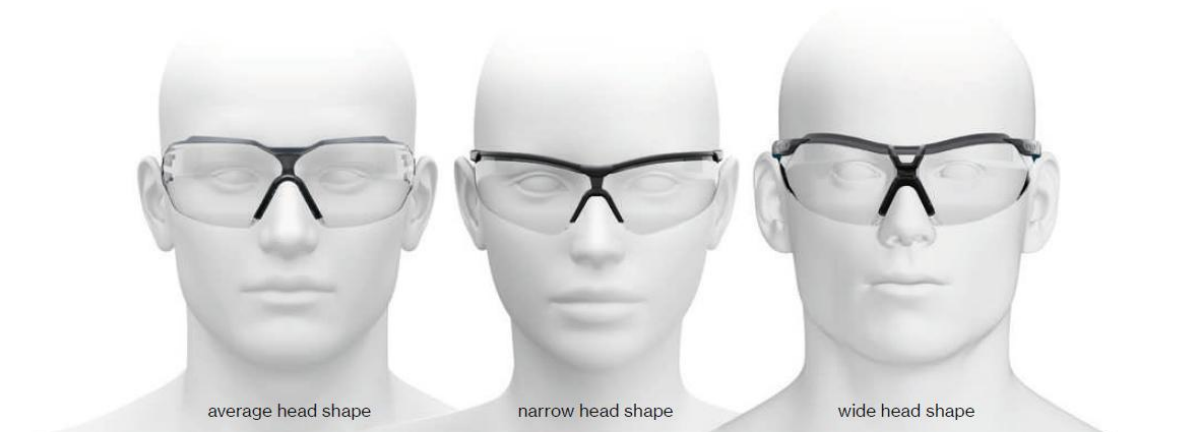
Our team can help walk you through the process of selecting the right products for your workplace. If you'd like further guidance, please contact one of our PPE Safety Solutions Experts using the following link: <https://www.uvex-safety.co.uk/en/about-uvex/how-to-contact-us/regional-contacts>.

You can also call our customer services team on 01252 731200.

uvex fitting guide

Useful tips for making sure that your uvex safety eyewear fits perfectly

It may seem obvious, but properly-fitting eyewear is crucial for a wearer's safety helping to reduce accidents, discomfort and increase compliance. Wearing just any safety eyewear is not enough to protect your eyes. Head and face shapes vary considerably, so it's impossible to something that fits you best. Follow the simple guide to check for gaps, pressure points and secure fitting to ensure your eyewear gives you the best possible protection.



Selecting the right model

Pay attention to:

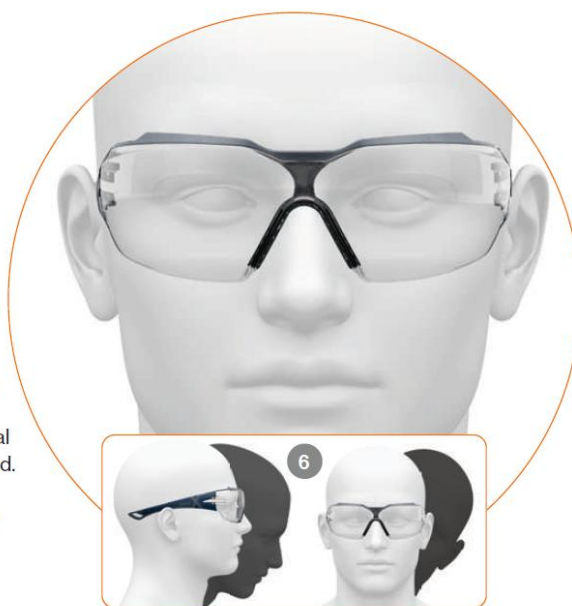
- a close fit with good eye coverage
- offers a good field of vision
- adjustable to improve fit



The wide range of uvex styles and designs allows you to find the product that most suits you. At uvex, we offer a range of lens shades and coatings to suit a variety of workplace environments and light conditions. All uvex lens options will provide 100% UV protection. Choose the style and type of frame that suits you and the environment you are working in.

Checklist

- 1 No uncomfortable pressure points on the side of the head or behind the ears.
- 2 Nose piece sits on nose without pinching or sliding.
- 3 You should be able to see in all directions without your peripheral vision being obstructed.
- 4 The lens should cover the eyebrow, eye socket and any soft tissue around it.



- 5 The overall weight of the safety eyewear is evenly distributed.
- 6 The eyewear should fit close to your face without touching your eyelashes. There should be no gaps along the top, bottom or sides.
- 7 The eyewear should remain comfortable and in place when you move your head forwards or backwards and tilt your head side to side.



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