Impact protection
starts with choosing the appropriate lens material

Why CR39 is suitable for everyday eyewear and low risk settings

Outstanding optical clarity
CR39 delivers superior visual quality, making it a popular choice for high street eyewear and prescriptions that require precision.

Lightweight comfort
Its organic composition ensures a light, comfortable fit for all-day wear, ideal for office work or VDU users.

Cost-effective and versatile
CR39 offers excellent value without compromising on quality, making it a go-to material for non-industrial environments. If you require impact protection of a minimum of 45 m/s CR39 will not be a suitable solution.

! **Some lenses may show an "S" marking under EN 166, indicating only a basic drop-ball test. This test is removed under the updated EN ISO 16321-1 standard.**

Why choose polycarbonate lenses for safety prescription eyewear?

Exceptional impact protection
Polycarbonate is an advanced organic material with outstanding breaking strength, delivering superior impact resistance to keep eyes safe in demanding environments.

Lightweight and comfortable
Up to 25% thinner and lighter than traditional plastic or glass lenses, reducing weight for all-day comfort without compromising durability.

Enhanced durability
When paired with a scratch-resistant coating, polycarbonate lenses maintain clarity and longevity, even in tough working conditions.

Compliance and future-ready
Meets current EN 166 safety standards and aligns with the EN ISO 16321-1 update (November 2025), ensuring your eyewear remains compliant and future-proof.

Transition from EN 166 to EN ISO 16321-1

Safety eyewear markings are evolving. Impact strength is still assessed under EN 166, but the updated EN ISO 16321-1 standard is now in effect. This new standard introduces changes to impact speed thresholds, letter designations, and coverage requirements.

What does this mean for you?

- ✓ **EN 166-certified products remain valid until their certificate expires, up to a maximum of five years.**
- ✓ **Any products certified or recertified to EN 166 by 11 November 2025 can continue to be sold legally until 11 November 2030.**
- ✓ **Prescription safety glasses and goggles will still display their tested impact resistance markings.**

For more information about the new standard including impact tests and orbital protection zones visit www.uvex-safety.co.uk/en-iso-16321-1-2022

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New standard for safety eyewear
EN ISO 16321

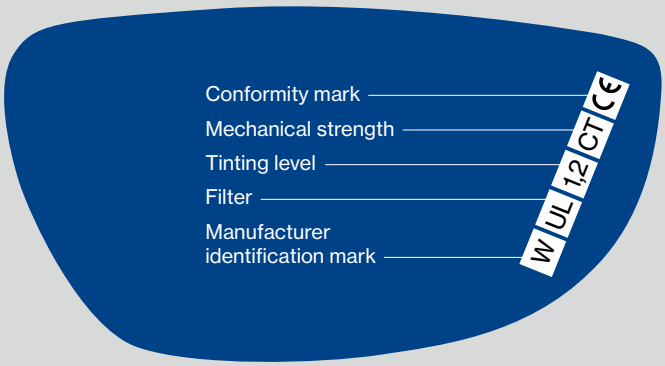
EN ISO 16321 – understanding the new standard and what it means for prescription safety spectacles

For more than 20 years, the EN 166 standard has defined all of the requirements and standards for safety eyewear within the European Union and the United Kingdom. EN 166 is now being replaced by EN ISO 16321. The new standard contains a range of international standards that will entail some significant changes to product requirements and test methods. **As a result, new certificates will be required for all prescription safety spectacles in accordance with EN ISO 16321. Existing EN 166 certificates will remain valid until their stated expiry date, after which replacement certificates must be issued under the EN ISO 16321 standard.**

The most important changes at a glance:

- ✓ New test heads and coverage areas have been defined, and certification of different head sizes (S, M, L) is now also permitted.
- ✓ EN ISO 16321 includes EN ISO 16321-1 (general requirements; optical clarity, frame integrity, UV, sunglare and IR filters), EN ISO 16321-2 (welding protection filters).
- ✓ The certification of all prescription safety spectacles (frames/lenses) will be updated. Revised impact speed categories and markings have also been introduced. These updated impact thresholds are detailed opposite.

Markings on lenses
in accordance with EN ISO 16321



Mechanical strength	
None	Drop ball test in accordance with EN ISO 16321 (basic requirement)
C	Low-energy impact (45 m/s or 162 km/h)
D	Medium-energy impact (80 m/s or 288 km/h)
T*	Tested under extreme temperatures (-5°C/+55°C)

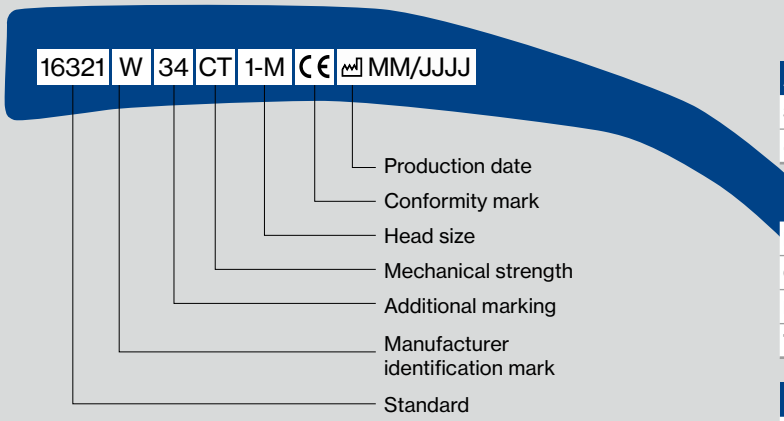
Filter	
U	UV protection filter
UL	UV protection filter with colour recognition
G	Sunglare filter (variomatic)

Tinting level Marking	Light transmittance	Tints
UL1.2	74.4–100%	Clear
G1–3		Self-tinting (variomatic)

If protection is needed against high-speed particles at extreme temperatures (–5 °C to +55 °C), safety eyewear must carry the letter ‘T’ following the mechanical strength rating (e.g. CT or DT). This marking confirms that the product has been tested for such conditions. If the ‘T’ marking is absent, the eyewear is only suitable for high-speed particle protection at normal ambient temperatures.

Additionally, if the **lens and frame carry different mechanical strength ratings** (such as C or D), the **lower rating applies to the entire eyewear**. This ensures that the weakest component does not compromise overall protection.

Markings on frames
in accordance with EN ISO 16321



Additional markings*	
3	Protection against liquids (drops and splashes)
4	Protection against large dust particles with a grain size of > 5 µm

Mechanical strength	
None	Drop ball test in accordance with EN ISO 16321 (basic requirement)
C	Low-energy impact (45 m/s or 162 km/h)
D	Medium-energy impact (80 m/s or 288 km/h)
T*	Tested under extreme temperatures (-5°C/+55°C)

Head sizes	
1-S	Small, European test head
1-M	Medium, European test head (standard)
1-L	Large, European test head
2-S	Small, Asian test head
2-M	Medium, Asian test head
2-L	Large, Asian test head

Where no head size is stated, the head form will be Medium.

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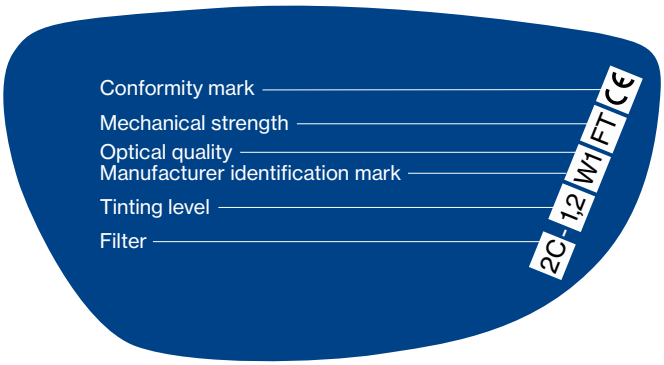
Certifications and markings in accordance with EN 166

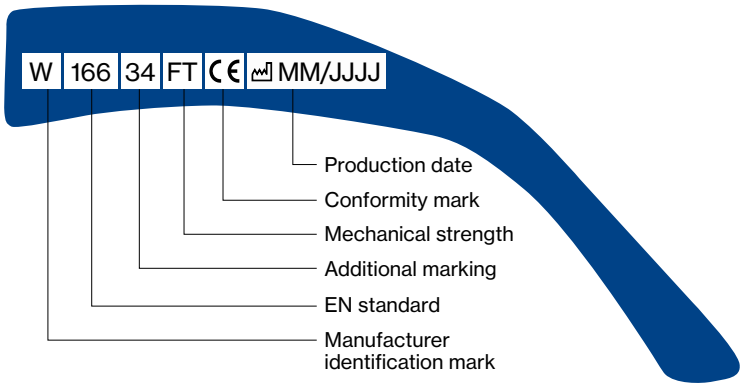
Individually manufactured uvex prescription safety spectacles are tested and certified by independent testing institutes at regular intervals according to the requirements of the current standard.

Frame and lenses are permanently marked and if the markings on the lens and frame are different, the lower mechanical strength applies to the entire eye protection device. According to the PPE regulation, uvex prescription safety spectacles must be marked with the factory symbol and production date.

Markings on lenses
in accordance with EN 166



Markings on frames
in accordance with EN 166



Mechanical strength	
S	Increased strength - drop ball test
F	Low-energy impact (45 m/s or 162 km/h)
B	Medium-energy impact (120 m/s or 432 km/h)
T*	Tested under extreme temperatures (-5°C/+55°C)

Filter Marking	Light transmittance	Tint
1.2	74.4–100%	Clear
1.1 < 3.1		Self-tinting (variomatic)

Filter	
2	UV protection filter (EN 170)
2C	UV protection filter with colour recognition (EN 170)
5	Sunglare filter for industrial use (EN 172)

Mechanical strength	
S	Increased strength - drop ball test
F	Low-energy impact (45 m/s or 162 km/h)
B	Medium-energy impact (120 m/s or 432 km/h)
T*	Tested under extreme temperatures (-5°C/+55°C)

Additional markings*	
None	General use
3	Protection against liquids (drops and splashes)
4	Protection against large dust particles with a grain size of > 5 µm

* optional