

Eye and Face Protection Questions and Answers

What does the 1 in EN166.1.B stand for?

Class 1 optical properties. This should mean that the wearer can wear the eye protector for an unlimited amount of time without any eye strain.

An eye protector with optical properties of 3 should not be worn for an extended period of time.

What type of eye protector protects against fine dust?

A goggle that has the marking "5" on the frame. Usually this will be an unvented body with an anti-mist /fog lens fitted.

What impact speed will goggles withstand?

The maximum that the standard allows for goggles to withstand is 120m/s (270mph). Goggles are also available for protection against particles to 45m/s (100mph), but these will usually have an acetate lens rather than polycarbonate.

Which lens are scratch resistant?

The majority of JSP spectacles have a polymeric hard coating. Super hard coatings are available, at a cost, these are tested using a falling sand method. Product tested in this way will be marked "K".

Which faceshield is for electrical arcing?

For protection against electric arcs the visor must be at least 1.4mm thick and the eye protector should carry "8" in its markings.

Which lens are anti-mist?

Many JSP products have anti-mist properties, a simple test is to breath on the side of the lens that would be to the wearers face if it does not mist it has anti-mist properties.

The standard has an additional test where the eye protector is held over water at 50°C and the amount of light that passes through is measured.

Product that has been tested in this way will be marked "N". Breathing is a far easier way of identifying product.

Which goggles can be used by people wearing corrective spectacles?

Any goggle that allows the wearers prescription spectacles to fit under it, however the larger the goggle the better, as this reduces the possibility of the lens touching the prescription eye wear enclosed by the goggle.

It should be noted that not only the impact protection is reduced but also the liquid splash and gas/dust protection properties of the goggle as the spectacle arms will hold the face seal away from the wearer's face.

Faceshields - Which one gives protection against Molten Metal?

Any goggle or faceshield with "9" markings. However it would always be recommended to wear a faceshield as this will give a greater area of coverage.

Which lenses are UV protective?

All polycarbonate lenses provide some level of protection against ultraviolet light, smoked lens will provide more because they allow less light through in the first instance, however to claim UV protection it is necessary to have a UV 400 lens.

What type of eye protector will protect against laser?

Product that is marked to the requirements of BS EN 207,



Optical Property Testing

the specification for filters and eye protectors against laser radiation.

Which faceshield should I choose for battery acid splashes?

Polycarbonate faceshields are the best choice for Sulphuric Acid splashes (10% solution strength).

What faceshield should I choose for motor fuel splashes?

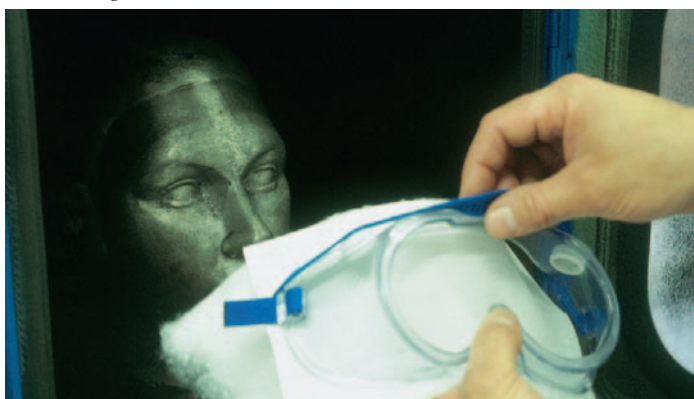
Acetate faceshields.

Do you supply 'Prescription Safety Spectacles'?

Yes we can do but they are treated as special orders, as each request will be different.

We do however have a range of Bifocal Safety Spectacles where a simple self administered test will enable you to select the correct one.

Dust Testing



Can I wear Safety Spectacles when using a staple gun (speed 100m/s) the leaflet with it says wear eye protection?

No. Eye protection for this situation must be Medium Energy - EN166B. Goggles to this standard will give the correct protection for the eyes but consider using a faceshield of this grade as it will give protection to the whole face area if fitted with an optional chinguard.

I am doing some metal arc welding (MIG) on heavy metals (steel and steel alloys), what shade of lens should I fit to the welding faceshield?

The choice of lens shade will be in the range 10 to 14 dependent on the current being used.
 10 for 80-100 amps
 11 for 100-175amps
 12 for 175-300 amps
 13 for 300-500amps
 14 for over 500 amps

Guide to Selection of Appropriate Eyewear

General Use Guidelines

The following tables give some guidance as to the selection of appropriate protective eyewear; whether an Eyeshield, Spectacle, Goggle or Faceshield. In all cases, a proper risk assessment should be carried out by a suitable qualified Health and Safety professional.

For further information and guidance, please call the JSP Technical Helpline on 01993 826051 or email at technical.services@jsp.co.uk

Task	 Eyeshield	 Spectacle	 Goggle	 Faceshield
General Factory Areas - Visitor	✓	✓	✓	✓
General Factory Areas - Employee	✗	✓	✓	✓
Non-hazardous Laboratories	✓	✓	✓	✓
Hazardous Chemical Laboratories	✗	✗	Low Energy Dust/Liquid	Low Energy
Chemical Cleaning	✗	✗	Low Energy Dust/Liquid	Low Energy
Light Chemical Use (No splash)	✗	✓	Low Energy	Low Energy
Hazardous Chemical use (Splash)	✗	✗	Low Energy Dust/Liquid	Low Energy
Solid Chemical Handling	✓	✓	✓	✓
Paint Spraying	✗	✗	Low Energy Dust/Liquid	Low Energy
General Engineering Machine Shop	✗	✓	✓	✓
Turning/Metal Grinding	✗	✗	Medium Energy	Medium Energy
Waste Handling	✗	✓	✓	✓
Dusty Environment	✗	✗	✓	✓
Brick/Stone Working	✗	✗	Medium Energy Dust/Liquid	Medium Energy
Education	✓	✓	✓	✓
Dentistry & Medical	✗	✗	Low Energy	Low Energy

General Guidelines	
Eyeshields	Suitable for visitors to factories or other persons observing work where the risk of flying particles is low.
Spectacles	As above + low speed machine operations in low to moderate risk of flying particles.
Low Energy Dust/Liquid Goggles	Suitable for use in areas where the main hazard is liquid droplet.
Medium Energy Impact Goggles	Suitable for use in areas where the main hazard is large flying particles.
Medium Energy Dust/Liquid Goggles	Suitable for use in areas where the main hazard is small flying particles and dust.
Faceshields	Suitable for use in areas where the hazards include liquid splash and where it is desired to protect the whole face. Faceshields can be worn with other forms of eye protection.