

<b>Titler</b>	The provision and management of Personal Protective Equipment
<b>Scope</b>	This Standard outlines the requirements of the provision and management of Personal Protective Equipment (PPE) for staff and students.
<b>Law</b>	Safety Signs and Signals Regulations 1996 The Construction (Head Protection) Regulations 1989 The Control of Noise at Work Regulations 2005 The Control of Substances Hazardous to Health Regulations 2002 Control of Asbestos Regulations 2012 Control of Lead at Work Regulations 2002 Personal Protective Equipment Regulations 1992 (as amended)
<b>Related H&amp;S standards</b>	Risk assessment Hazardous Substances
<b>Training / information / instruction required Additional sources of information</b>	Risk Assessment COSHH Assessment

## Introduction

1. PPE is worn to protect an individual from risks encountered whilst at work. The legislation covers employees and self employed people and there is an explicit statutory duty to provide wear and enforce the wearing of PPE for employees. However the University also has a duty to provide for the safety of those who may be affected by what we do and this includes students. Where PPE has been identified as an appropriate control measure then it must be used by staff and students. As with all health and safety controls, failure to comply with the use of PPE is a disciplinary offence for both staff and students.

## Definition

2. Personal protective equipment is equipment that is worn or held that protects against one or more risks to an individual's health and safety. This includes clothing that protects against weather and any addition or accessory that is designed to protect against a risk to health and safety, for example, a personal alarm if physical violence has been identified as a risk.
3. PPE does not include
  - Uniforms in general. If parts of a uniform protect against risk then that element is PPE, but in general uniforms are not protective clothing.
  - Most protective clothing worn during food preparation. The function of hair nets and overalls during food preparation is to protect the food from contamination, not the person from risks arising from the foodstuffs.
  - Cycle helmets or crash helmets worn by employees on the road. Crash helmets are PPE when worn off road.
  - Protective equipment worn by professional sportsmen during competition. However such equipment is PPE when worn in other work circumstances e.g. head protection worn by steeplejacks or abseiling window cleaners.

## Provision of PPE

4. For staff
  - No charge can be made for the provision of PPE used solely for work, nor can a deposit be required to ensure the return of PPE, or to cover any damage. PPE remains the property of the employer.
5. For students
  - There is no legal requirement to provide PPE for people other than employees but there is a requirement to enforce the use of PPE when it has been identified as a measure to control risks to the individual.
  - The decision whether to provide PPE or require students to provide their own PPE should be taken locally.
  - Any equipment provided for students should be subject to the same maintenance, inspection and cleaning regimes as that provided for staff.

- All reasonable steps should be taken to ensure equipment provided by students for their own use is inspected, tested and maintained as required and provides the level of protection required.

### **Identifying when PPE is appropriate**

6. PPE should always be considered as the last resort to protect against risks to health and safety. Engineering controls and safe systems of work should be considered first. When deciding on control measures consider the following questions:
  - Can the hazard be eliminated altogether?
  - If not, how can risks be controlled so that harm is unlikely?
7. When considering the answer to the second question the following principles should be applied, in the following order;
  - Using a less risky option i.e. edge protection before considering fall arrest harnesses
  - Prevent access to harm e.g. using guards on dangerous part of machinery
  - Organising work to reduce the exposure to the hazard e.g. if there is a risk of falling objects restrict entry to the area rather than allowing unfettered access and providing hard hats.
  - If, after all the above principles have been considered, there is still a risk the PPE will probably need to be provided.

**Remember it is not always possible to reduce risks to an acceptable level. If this is the case the activity should not be undertaken.**

### **Why is PPE the last resort?**

8. PPE is usually a relatively inexpensive option and the most convenient so it may seem perverse to discourage its use. There are several reasons why PPE is the last resort;
  - It only protects the individual and not a group, which is the preferred option;
  - In a busy area it is difficult to ensure everyone is using their PPE appropriately and benefiting from the level of protection required
  - People don't like wearing it and cannot be relied on to wear PPE consistently or as it should be to provide protection. This can be for understandable reasons such as it doesn't fit and is uncomfortable or damaged and difficult to use, or it can be for ridiculous reasons such as it isn't cool and looks stupid.
  - PPE seldom provides the maximum level of protection in practice and the actual level of protection is difficult to assess.

### **Deciding if PPE is suitable**

9. When PPE has been identified as a suitable control measure another assessment is necessary to identify which type of PPE is the right type. A written record of this assessment should be kept for future reference. The assessment should consider the following
  - What are the risks and what protection is required?

- What does the job entail i.e., physical effort required; how long will PPE be worn for; what are the requirements for visibility and communication?
- Are there environmental factors that need to be considered, for example, heat, noise, restrictions on movement?
- Who is going to be wearing/using the PPE Do they have any health issues that need to be considered? for example; existing musculo skeletal conditions that might be made worse by heavy or stiff equipment, any allergies, such as to latex, a common material for disposable gloves.

10. The whole life cycle of the equipment should be considered. It may cost more to use disposable respiratory protective equipment but the requirements for testing and maintenance can be complicated, time consuming and difficult to monitor and, therefore, using disposable RPE may be the most practicable solution overall.

11. Most PPE should have the CE mark. This is a European mark of quality similar to the old kite mark or the British standard mark. The only exceptions are for;

- Equipment that was placed on the market before July 1<sup>st</sup> 1995 and is still suitable for the use to which it being put and is properly maintained;
- Equipment designed and manufactured specifically for use by the armed forces or in the maintenance of law and order and PPE intended for the use of the protection or rescue of people on vessels or aircraft and is not used all the time. (Not likely to be relevant within the University,) and;
- PPE that has been modified for a person with a disability; for example someone with one leg shorter than the other who requires a safety shoe with a raised sole. Bespoke equipment for this circumstance can be used in the work place as long as the individual or company manufacturing the article of PPE has provided a statement that contains the following information.
  - Data allowing the identification of specific articles of PPE
  - A statement that the PPE is intended for exclusive use by a particular intended user, together with the name of the intended user.
  - The name and address of the manufacturer.
  - The particular features of the PPE
  - A statement that the PPE in question conforms to the principles laid down in Annexe II of the PPE Directive.
  - A statement of the medical or technical grounds for the custom made PPE together with the scope and number of PPE items concerned
- The statement must be kept for at least 10 year after the PPE is placed on the market.

### **Inspection, testing and maintenance**

12. PPE must be effectively maintained in good working order to ensure the required level of protection is provided at all times.

**13. Respiratory Protective Equipment must be either replaced every 28 days**

14. An effective maintenance regime will include all or some of the following;
- Examination – checking for faults, damage, wear and tear, cleanliness etc. this should be done every time PPE is used.
  - Testing – to ensure PPE is operating as intended, particularly important for respiratory protective equipment (RPE)
  - Cleaning – including disinfection if necessary.
  - Repair - if PPE can be repaired sufficient replacements parts should be kept to allow prompt repair
  - Replacement – if equipment cannot be repaired then it must be taken out of use immediately and replaced.
15. PPE should be examined before being used, or at the end of each usage, before being stored.
16. There should be enough PPE for expected usage and prompt repair is important to maintain equipment levels. If PPE is in short supply people are more likely to carry on with out adequate protection rather than wait.
17. Defective equipment or equipment that may be defective must be taken out of use immediately.
18. In general PPE shouldn't be shared, but for some items such as ear defenders or eye protection that is only used occasionally, it may be acceptable to expect people to share. If equipment is to be shared cleaning equipment must be readily available and the need for cleaning explained and monitored.
19. The responsibility for carrying out maintenance, along with details of the procedures to be followed , frequency, training required etc. must be recorded in writing and communicated to all those affected, where available manufacturers' maintenance schedules and instructions must be followed.

### **Storage**

20. Adequate storage is necessary to prevent contamination and damage to equipment when not in use. Storage facilities may be as simple as a hook on which to hang ear defenders or, if protection against contamination is necessary may need to be enclosed and secure i.e. to keep RPE clean.
21. Storage requirements should be considered when choosing suitable PPE, and should be in place before equipment is introduced into the workplace.

### **Information, instruction and training.**

22. It isn't enough to simply issue PPE and expect it to be worn properly, there is often a reluctance to wear PPE so it is important that people understand why they are required to wear PPE. The information provided should include; what it protects against, how this protection is provided; how to wear and fit the equipment, recognise damage and when and how equipment should be replaced. It is also important for people to understand the

limitations of PPE, for example that some RPE may protect against dust but not vapour, some eye protection against acid splashes but not high impacts.

23. It goes without saying that because information, instruction and training about the purpose, use and management of PPE is safety critical it must be understood by all those using or otherwise affected by the use of equipment. It may be necessary to adapt delivery and records should always be kept.
24. It is foreseeable that student's may carry out practice requiring PPE off site, not under the control of the University. It is important therefore that they understand the hazards of processes and how to control these hazards. Providing information about the selection, use and limitations of PPE is an important part of helping students maintain a safe working environment when off site.
25. The extent of instruction and training will depend on the complexity and performance of equipment the competence of the user and the level of supervision. These factors should be considered when assessing the suitability of PPE, and any instruction, information and training to be delivered.
26. Training is usually a combination of both practical and theory and should include all or some of the following elements.
27. Theoretical training
  - An explanation of the risks and why PPE is needed.
  - The operation, performance and limitations of equipment.
  - Instruction on the selection, use and storage of PPE, written operating procedures such as permits to work involving PPE should be explained.
  - Factors which could affect the protection provided by the PPE such as other protective equipment, personal factors (i.e. facial hair and the use of RPE), working conditions, inadequate fitting, defects, damage and wear.
  - Recognising defects in PPE and the arrangements for reporting loss or defects.
28. Practical training
  - Practice in putting on, wearing and removing the equipment,
  - Practice in inspection and, where appropriate, testing of the PPE before use.
  - Practice in how to maintain PPE, which can be done by the user, such as cleaning and replacement of certain components
  - Instruction in the safe storage of equipment.
29. Refresher training may be necessary occasionally, particularly if equipment is complex or hasn't been used for a while.

## Types and usage of particular PPE.

### Head protection

There are several types of head protection with different and overlapping functions

#### 30. Industrial safety helmets

- Protect against falling objects or impact with fixed objects
- Limited resistance to flame
- Some types give protection against impact at high or low temperatures, against electric shock from brief contact up to 440vac and against molten metal splashes.

#### 31. Bump Caps

- Protect against bumps and scalping
- Do not offer adequate protection where there is a risk of falling objects or moving or suspended loads.

#### 32. Fire fighters' helmets

- Similar to industrial safety helmets but cover more of the head and give greater protection against impact, heat and flame

#### 33. Transport helmets

- Protect against head injuries from falling off a motorcycle or bicycle,
- PPE Regs do not cover head protection worn on public highways but do cover the use of helmets in off road situations.

#### 34. Leisure helmets

- Used for activities such as horse riding, canoeing or climbing.
- Specific to each activity.

#### 35. Key points

- Use and adjustable chinstrap, if fitted to make sure the helmet does not fall off.
- Clean the inside of the helmet and clean or replace sweatbands regularly
- Check regularly that any damage to the outside is no more than shallow scratches or grazes and that the internal harness is not deformed or damaged
- Discard head protection after any significant impact by a fixed or falling object. Head protection is unfit for use if the outside is deeply scratched, worn or deformed, the harness is damaged or it is beyond its usable life ( as a general rule, industrial helmets should be replaced three years after manufacture, but this should always be checked for each model)
- Wear the helmet so that the brim is level when the head is upright. Do not wear it sloping up or down or back to front as this may significantly reduce the protection it can provide.
- Head protection should never be customised e.g. making additional ventilation holes, paint, mark or put stickers on it.

### Eye and face protection



In addition to the styles of eye and face protection listed below the type of protection must be considered; for example, resistance to acid splash, heat, cold or impact. Table gives the british standard for the level of protection afforded by different PPE

### 36. Safety spectacles

- 
- 
- **Goggles**
- **A flexible plastic frame and**
- **Give protection from all a**
- **Some goggles are ventila**  
**dust or vapour.**

- (similar to prescription glasses) or a single lens/from moulding (sometimes called eye shields)
- Most designs have side shields
- Can protect against splashes and or impact
- Can incorporate corrective lenses. If safety spectacles are being worn for extended periods, i.e. not only when a short task is being performed, then prescription lenses should be provided if necessary.
- May be separate lenses in a metal or plastic frame

### 37. Face shields

- Have one large lens with a helmet.
- Most can be worn with prescription glasses
- They protect the face but do not fully enclose the eyes so do not provide protection against side impact.

## 03D0900 DeWalt Concealer Goggle







Click thumbnails to view images

- **Additional Info**
- **Technical**
- **Description**

**new!**

Ventilated, anti-fog goggle.

- Adjustable elastic headband.
- Compatible with prescription frames.
- Polycarbonate lens.

Approved to EN166 1B 34

Examples of hazards which may require eye and face protection

The following is not an exhaustive list.

- Liquid or chemical splash as a result of handling or coming into contact with dangerous liquids or chemical substances
- Working with power driven tools where chippings or debris are likely to fly into the face, or abrasive materials may be projected.
- Dust, gas or liquid mist from machines, high pressure cleaning or using gas or vapour under pressure.
- Radiant heat, molten metal, hot solids, sparks or hot liquid splash from working in hot conditions, for example welding, ovens, furnaces etc.
- Intense light or other optical radiation emitted at levels liable to cause risk of injury, for example welding and using lasers.

Key points

- Make sure the eye/face protection fits the user and does not fall off easily. It should be issued on a personal basis, or if this is not practicable then a range of sizes should be available.
- Consider misting/fogging. Anti mist and ventilated eye protection is available. Misting and fogging is more likely when wearing RPE.
- Eye protection should be stored in a protective case.
- Some lenses can be damaged by harsh cleaning fluids or abrasives and the manufacturers' guidelines should always be followed.

- Do not use when visibility is noticeably reduced, if the lenses are scratched or worn, or the frame, harness or headband is deformed.
- If eye/face protection provides protection against impact discard if subject to a significance impact that deforms or results in deep scratches.

Type of Hazard	BS 2092 Marking	BS EN 166 Markings	
	Frame and Lens	Frame	Lens
<b>Optical Class:</b>			
Refractive Tolerance + 0.06 dio	.	.	<b>1</b>
Refractive Tolerance + 0.12 dio	.	.	<b>2</b>
Refractive Tolerance + 0.12 / 0.25 dio	.	.	<b>3</b>
<b>Mechanical Strength</b>			
Minimum robustness	.	.	.
Increased robustness (General Purpose)	BS 2092	.	<b>S</b>
Low Energy Impact (Grade 2 - 125 ft/s)	BS 2092:2	<b>F</b>	<b>F</b>
Medium Energy Impact (Grade 1 - 360 ft/s)	BS2092:1	<b>B</b>	<b>B</b>
High Energy Impact	.	<b>A</b>	<b>A</b>
<b>Use</b>			
Basic	.	.	.
Liquids (Chemical)	<b>C</b>	<b>3</b>	.
Large Dust Particles (Dust)	<b>D</b>	<b>4</b>	.
Gas and Fine Dust Particles (Gas)	<b>G</b>	<b>5</b>	.
Short Circuit Electric Arc	.	<b>8</b>	.
Molten Metals and Hot Solids	<b>M</b>	<b>9</b>	<b>9</b>
<b>Optical Requirements</b>			
Resistance to Misting	.	.	<b>N</b>
Resistance to Surface Damage (Anti-Scratching)	.	.	<b>K</b>

Hand and arm protection  
Types of protection

There are four types of hand and arm protection  
Gloves – hand only

Gloves with a cuff – hand a wrist

Gauntlets/ sleeves/ long gloves – hand wrists and part of forearm

Sleeving/ arm protection – part of forearm and or upper arm. No hand protection.

#### Examples of hazards

- Protection from cuts and abrasion, for example when handling sharp or pointed objects ( note, chain mail gives protect against cuts but do not protect against injury from point objects such as needles)
- To keep hands warm and supple in cold weather. Manual dexterity is lost in the cold, exposure to sever or prolonged cold can cause physiological damage that can be long lasting. Some people have a pre existing condition making them particularly sensitive to cold.
- Providing protection when operating vibrating machinery such as chain saws and pneumatic drills, this is particularly important in cold environments and with prolonged use of vibrating machinery increasing the likelihood to damage to local circulation leading to long term loss of dexterity and pain.
- Danger form electrical hazards
- Handling or coming into contact with chemicals for example printing and dyeing fabric, etching and photographic development.
- Prolonged exposure to wet environments
- Handling hot or cold materials and work involving the possibility of accidental contact with naked flames.

Type of Chemical	Glove Material					
	Natural Rubber	Nitrile Rubber	Neoprene (TM)	PVC	Butyl	Viton (TM)
Water miscible substances weak acids/alkalis	X	X	X	X	-----	-----
Oils	-----	X	-----	-----	-----	-----
Chlorinated hydrocarbons	-----	-----	-----	-----	-----	X
Aromatic solvents	-----	-----	-----	-----	-----	X
Aliphatic solvents	-----	X	-----	-----	-----	X
Strong acids	-----	-----	-----	-----	X	-----
Strong alkalis	-----	-----	X	-----	-----	-----
PCBs	-----	-----	-----	-----	-----	X

British Standard	Type of Respiratory Protective Equipment	Hazards which the Respiratory Protective Equipment will protect Against	Class or Filter	Assigned Protection Factor
BS EN 149	Particle filter which covers the nose, mouth and chin	Only protects against dust particles NOT against gases or vapours.	FFP1 FFP2 FFP3	4 10 20
BS EN 405	Disposable half mask containing a gas filtering as well as a particle filtering element.	These masks can protect against dust particles and certain types and quantities of gases and vapours.	FFGasxP1 FFGasxP2 FFGasxP3	4 10 10
BS EN 140	Half mask cover the nose, mouth and chin. It is usually made of rubber or silicon and has replaceable filters.	The mask can be fitted with a series of replaceable filters to protect against dust hazards and gas hazards.	P1 P2 P3 Gas Gas+P3	4 10 20 10 10
BS EN 136	Full mask covering all the face. It is usually made of rubber or silicon and has replaceable filters.	The mask can be fitted with a series of replaceable filters to protect against dust hazards and gas hazards.	P2 P3 Gas Gas +P3	10 40 20 20
pr BS EN 12941	This is a positive pressure full face hood/helmet	This mask/helmet can be used to protect against dust particles and certain gases/vapour hazards.	TH 1 TH 2 TH 3	10 20 40
pr BS EN 12942	Power assisted full face mask respirator	This mask protects against both particulates and gases/vapour hazards. It is power assisted as if the power fails, the system will still filter the air reaching the worker.	TM 1 TM 2 TM 3	10 20 40



- **Additional Info**
- **Technical**
- **Description**

5??? work boot grill detail heel support and skeletal support system.

- Honey Nubuck upper.
- High wicking lining for extra comfort.
- Durable rubber outsole with moulded EVA footbed, heat resistant to 300°C.
- Anti-static.
- Composite midsole and toe cap.
- Other Features; Anti-bacterial dual density removable footbed.

200 joule EN ISO 20345.

Sizes 6 - 12

This safety footwear meets EN ISO 20345 (successor to BSEN345) for safety footwear and offers the highest protection. Toecaps tested to 200 Joule. Classification S (see below).

Which standard your footwear is tested to is identified on the product label, this is found within the boot or shoe. If in any doubt please contact your [local Arco branch](#).

**Classification**

**S1 P**

200 Joule Toecap Protection. Closed seat region (fully enclosed heel). Antistatic properties. Energy absorption of seat region.

**Additionally:** Penetration resistance offered by a Steel Midsole

<b>Antistatic</b>	✓
<b>Heat °C</b>	300
<b>Composite Midsole</b>	✓
<b>Joule</b>	200



[Full list of safety and protective footwear classifications](#)

**Further Information**



Stocked item, normally delivered in 2 days.



This product is part of our Arco Local Range and will be stocked at our trade counters.

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**313300 igard Visitor Eyeshield/Overspec**



- **Additional Info**
- **Technical**
- **Description**

Economical eyewear ideal for visitors and general use.

- Wrap-around style with single scratch-resistant polycarbonate lens.
- Moulded brow guard and vented side arms.
- Can be worn over prescription spectacles.

Approved to EN 166 1F.

Supplied in packs of 10.