This Information Sheet provides guidance on how to select and use Personal Protective Equipment (PPE) that is suitable for the hazard it is protecting against and for the individual wearing it.

THE PERSONAL PROTECTIVE EQUIPMENT REGULATIONS

The main requirement is that PPE is supplied, free of charge to employees if their work poses a health and safety risk that cannot be controlled in other ways.

At the University the same principle applies to students required to wear special PPE for their studies (eg safety glasses, gloves) although students are usually responsible for purchasing general PPE themselves, for example weatherproof clothing for fieldtrips, lab coats.

The Regulations also require PPE is:

- Risk assessed before use to ensure suitability.
- Maintained and stored properly.
- Provided with instructions on safe use.
- Used correctly by employees.
- Issued for personal use if PPE has to be hygienic and free from health risks.

REMEMBER PPE SHOULD ONLY BE WORN AS A LAST RESORT when no other means of protection is available, or, if even when engineering controls and safe systems of work are applied, some hazards might remain

WHAT IS PPE

PPE is equipment that protects the user against health or safety risks at work. It includes items such as safety helmets, hard hats, gloves, eye protection, high-visibility clothing, safety footwear and safety harnesses. Although the PPE Regulations covers most PPE, other more specific regulations may apply to hearing protection and respiratory protective equipment, eg the Control of Asbestos Regulations. However, these items still need to be compatible with other PPE provided.

PPE does not include ordinary work clothing and uniforms not specifically designed to protect against hazards, portable devices (eg personal gas detectors) and sports equipment.

PPE can protect:

- Lungs, eg from breathing in contaminated air.
- Head and feet, eg from falling materials.
- Eyes, eg from flying particles or splashes of corrosive liquids.
- Skin, eg from contact with corrosive materials.
- Body, eg from extremes of heat or cold.

RISK ASSESSMENT

The Risk Assessment process will identify study / work related hazards and those at risk.

When establishing controls to manage hazards, make every effort to eliminate the hazard or, reduce associated risks. For example, replace a substance with a non-harmful type, chose liquid form over powder, order pre-cut wood, or introduce engineering controls and safe systems of work.

If after this an element of risk remains, you must then issue PPE. Make sure PPE is not only suitable for the risks it is protecting against but also the wearer. Be mindful if PPE could actually increase risk or even add a new risk, for example, making communication difficult. It is also important to establish how often PPE needs to be replaced, such as disposable gloves every 30 minutes.

Once the Risk Assessment is in place, inform all relevant persons of it, requirements and provide training and instruction as needed to ensure correct use of PPE.

TRAINING AND INSTRUCTION

Staff and students must receive training and instruction if identified as needing to wear PPE with records kept of this. Training and instruction should include:

- The reason for PPE.
- When to wear PPE.
- What its limits are.
- Safe removal. Safe disposal.
- Replacement frequency. Repair requirements.
- PPE storage.
- Cleaning PPE (if required).
- How to obtain new / replacement PPE.
- Defective PPE reporting process.

PPE USERS

If asked to wear PPE staff and students must:

- Wear the PPE.
- Follow all instruction and training given as part of PPE use.
- Report concerns immediately.

STORAGE AND MAINTENANCE

When not in use, store PPE in a suitable location, which is also accessible if users need to obtain replacements frequently. In addition, consider:

- If re-usable PPE, what cleaning is required.
- Having the correct replacement parts for the original.
- If expiry dates apply.
- Statutory requirements eg harnesses requiring examination by a competent person.
- Who will arrange maintenance and follow up on subsequent actions.
- Process to manage defective PPE.
- Maintaining stocks of spare / replacement PPE.

CHOOSING THE RIGHT PPE

A wide range of PPE is available which can confuse. It is essential you assess PPE specifications (or talk to your supplier) so suitable PPE is purchased for the risks and the user. Look for BS / EN Numbers, CE and / or Kite Marks as assurance of quality.

When choosing PPE have you considered?

WHAT IS PPE PROTECTING AGAINST	✓ / ×
Inhalation eg dust, fumes, vapours, odours	
Skin eg splashes / contact (incls. eyes), cuts, puncture wounds	
Ingestion	
Physical eg noise, vibration, falls, falling objects, crushing, hot, cold	
Multiple Risks eg noise and falling objects (ear defenders + hard hat)	

EXPOSURE – WHAT IS THE NATURE / EXTENT	✓ / ×
Duration how long is exposure	
Frequency how often is the exposure	
Level / Extent eg how loud is the noise, how concentrated is the substance	
Where eg outside, inside, wet, dry, ventilated / un-ventilated, hot, cold	

INDIVIDUAL	✓ / ×
Size – one size doesn't fit all	
Personal features eg big hair / facial hair preventing seals	
Specific needs eg latex allergy, eczema	
Physical job demands eg PPE being too heavy or hot	

PPE	✓ / ×
CE / Kite Marked – assures it meets the required standard	
Protection – does it safeguard against the risk (suppliers can advise)	
Comfort – is it suitable for the time / frequency worn, effort / place of work	
Individual – is it appropriate for them	
Compatibility – if more than one item is worn at a time, are they suited	

REVIEW

Monitor and review work activities regularly to capture changes in equipment, materials and methods.

In some cases, the Risk Assessment will need updating and PPE changed. If this happens, inform relevant persons and remove unsuitable, redundant PPE from use so not worn in error.

In addition, check PPE is used. If it is not, find out why and take action.

Never allow exemptions from wearing PPE for jobs that 'only take a minute'.

PPE OPTIONS / GENERAL ADVICE

Body Area	Hazards	PPE Options	Advice / Pre-Use Checks
EYES	• Chemical or metal splash, dust, vapour, projectiles, gas, welding arcs, non-ionising radiation, lasers	• Safety Glasses / Goggles • Welding Fitters • Face-shields / Hoods • Eye-shields, Visors	• Take care as goggles etc may affect peripheral vision / mist up • Check PPE is clean / free from scratches
HEARING	• Hearing loss	• Ear Muffs (not worn with Hard Hat) • Ear Muffs / Defenders (worn with Hard Hat) • Ear Plugs	• Check muff / defender seals / are clean, free from splits etc • Check heads bands adjust • Wash hands before inserting / removing ear plugs • Only use disposal plugs once
HEAD	• Impact from falling or flying objects, risk of head bumping, hair entanglement	• Hard Hats • Bump Caps *(with adjustable head band or chin strap)*	• Check for splits / scratches • Replace if integrity affected eg dropped, heat / sunlight • Replace at least every 3 years
BREATHING	• Dust, vapour, gas, oxygen deficient atmospheres, animal dander	• Disposable Masks • Half / Full Face Respirators • Air Fed Helmets • Breathing Apparatus	• BA equipment must be fitted to the person eg 'Face Fit' Testing • Masks / cartridges / filters must be specific to the hazard • BA equipment requires specific checks by a competent person
BODY	• Temperature extremes, adverse weather, chemical splash, impact / penetration, contaminated dust, wear / entanglement of own clothing, impact with others / vehicles as not seen, water buoyancy	• Conventional / Disposable Overalls • Specialist Protective Clothing • High-visibility (coats, tabards, waistcoats) • Life Jackets / Buoyancy Aids	• Make sure clothing can't get caught in machinery / equipment • Dispose of overalls correctly eg place in yellow bags if handling biological / clinical hazards • Keep Hi-vis clothing clean • Use, clean, store clothing as guided by manufacturer
HANDS / ARMS	• Hot / cold, abrasions, cuts, impact, punctures, crushing, chemicals, vibration, radiation, electric shock, skin infection / disease, contamination, food handling	• Gloves • Gauntlets • Mitts • Wrist-cuffs • Armlets	• Gloves must be specific to the hazard eg chemical resistant, protection against punctures • Check gloves for damage before use eg splits, wear • Remove gloves carefully to avoid personal contamination
FEET / LEGS	• Electrostatic build-up, slipping, cuts, crushing, abrasions, punctures, falling objects, chemicals, heat, water, cutting equipment	• Safety Boots / Shoes *(penetration resistant soles, steel toe caps)* • Wellingtons • Anti-static footwear • Chainsaw boots	• Check footwear for splits, exposed reinforcement • Check footwear is clean eg mud, oil that could make them slippery • Check laces tied to avoid trips

PPE STANDARDS

The following details the required Standards for different types of PPE. To ensure efficacy, only purchase PPE that meets these Standards.

Protective Helmets

BS 6658:1985	Protective Helmets for Vehicle Users	
BS EN 4110:1979	Visors for Vehicle Users	
BS EN 397:2012 +A:2012	Industrial Safety Helmets	CE
BS EN 812:2012	Industrial Bump Caps	CE
PAS 017:1995	Riot Helmets for Police use	
BS EN 1078:2012	Helmets for Pedal Cyclists and for users of Skateboards	CE
PAS 028:2002	Marine Safety Helmets	CE
UN ECE Regulation 22.05	Protective Helmets for drivers and passengers of mopeds and motor cycles with or without side-car and for visors fitted to such helmets or intended to be added to them	

Sports Helmets

BS EN 1384:2012	Helmets for equestrian activities	CE
PAS 015:2011	Equestrian Helmets	CE
BS 7928:1998	Head protectors for cricketers	CE
BS EN 966:2012	Helmets for Airborne Sports	CE
BS EN 1077:2007	Helmets for Alpine Skiers and Snowboarders	CE

Impact protection for the body

BS EN 1177:1998	Impact absorbing playground surfacing	CE
IRB/REG12/Iss 1/2005	Specific items for rugby players' clothing (headgear, shoulder padding & banned items)	

Respiratory Products

BS EN 140:1999	Half/Quarter masks	CE
BS EN 14387:2004 +A1:2008	Gas Filters & Combined Filters	CE
BS EN 143:2000	Particle Filters	CE
BS EN 149:2001 +A1:2009	Filtering half masks to protect against particles	CE
BS EN 12941:1998 +A2:2008	Powered Hoods and Helmets	CE
BS EN 12942:1998 +A2:2008	Powered air for full/half masks	CE
BS EN 136:1998	Full face masks – Class 1,2, or 3	CE
BS EN 405:2001 +A1:2009	Valve Combined Filtering Half Mask	CE
BS EN 137:2006	Self Contained Breathing Apparatus	CE
BS EN 138:1994	Fresh Air Hose for use with face mask	CE
BS EN 14594:2005	Continuous Flow Compressed Airline Breathing Apparatus	CE
BS EN 402:2003	Self Contained Breathing Apparatus Escape Mask	CE
BS EN 1146:2005	Self Contained Open-Circuit Compressed Air Breathing Apparatus with Escape Hood	CE

Hearing Protection

BS EN 352-1:2002	Earmuffs	CE
BS EN 352-2:2002	Earplugs	CE
BS EN 352-3:2002	Earmuffs on safety helmets	CE
BS EN 352-4:2001	Level Dependent Earmuffs	CE
BS EN 352-5:2002	Active Noise Reduction Earmuffs	CE
BS EN 352-6:2002	Earmuffs with electrical audio input	CE
BS EN 352-7:2002	Level dependent earplugs	CE

Eye Protection

BS EN 166:2002	Personal Eye Protection	CE
BS EN 175:1997	Welders eye and face protection	CE
BS 4110:1979	Visors for Vehicle Users	
BS EN 169:2002	Welding filters	CE
BS EN 170:2002	Ultraviolet filters	CE
BS EN 171:2002	Infrared Filters	CE
BS EN 172:1995	Sun glare filters for industrial use	CE
BS EN 1731:2006	Mesh face screens	CE
BS EN 1386:2005	Sunglasses and Sun Glare filters	
BS 5883:1996	Swimming goggles	

Glove Protection

BS EN 60903:2003	Live working: Gloves of insulating materials	CE
BS EN 659:2003 +A1:2008	Protective gloves – Firefighters	CE
BS EN 374-1:2003	Protective Gloves – chemicals and micro organisms	CE
BS EN 374-2:2003	Protective gloves – micro organisms	CE
BS EN 374-3:2003	Protective gloves – chemical permeation	CE
BS EN 388:2003	Protective gloves – mechanical risks	CE
BS EN 407:2004	Protective gloves – heat and fire	CE
BS EN 420:2003 +A1:2009	Gloves – general requirements	CE
BS EN 511:2006	Protective gloves - cold	CE

Protective Footwear

BS EN 15090:2006	Footwear for firefighters	CE
BS EN ISO 20345:2011	Safety footwear	CE
BS EN ISO 20346:2004	Personal protective equipment protective footwear	CE
BS EN ISO 20347:2012	Occupational footwear	CE

Key: A BSI Kitemark scheme is currently available on this

CE BSI can provide PPE Directive Notified Body services for these complex and intermediary products as indicated above.

High Visibility Clothing

BS EN 471:2003 +A1:2007	High visibility clothing	CE

Protective Clothing

BS EN 464:1994	Protection against liquid and gaseous chemicals, including aerosols and solid particles	CE
BS EN 14605:2005 +A1:2009	Protection against liquid chemicals with liquid tight connections (Type 3 Equipment)	CE
BS EN ISO 17491-4:2008	Protection against liquid chemicals	CE
BS EN 469:2005	Protective clothing for firefighters	CE
BS EN 510:1993	Protective clothing for use with risk of entanglement with moving parts	CE
BS EN 530:2010	Abrasion resistance of protective clothing materials	CE
BS EN ISO 11612:2008	Protective clothing to protect against heat and flame	CE
BS EN ISO 15025:2002	Protective clothing against heat and flame	CE
BS EN ISO 14116:2008	Protective clothing against heat and flame	CE
BS EN 702:1995	Protective clothing against heat and flame	CE
BS EN 943-1:2002	Protective clothing against liquid and gaseous chemicals, aerosols and solid particles	CE
BS EN 943-2:2002	Protective clothing against liquid and gaseous chemicals	CE
BS EN 1073-1:1998	Protective clothing against radioactive contamination	CE
BS EN 1073-2:2002	Protective clothing against radioactive contaminations	CE
BS EN 1149-1:2006	Protective clothing – electrostatic properties	CE
BS EN 1149-2:1997	Protective clothing – electrostatic properties	CE
BS EN ISO 6529:2001	Protection against permeation by liquids and gasses (ISO 6529:2001)	CE
BS EN ISO 10819:1997	Mechanical vibration and shock (ISO 10819:1996)	CE
BS EN ISO 13995:2001	Protection against mechanical properties (ISO 13995:200)	CE
BS EN ISO 13997:1999	Resistance to cutting by sharp objects (ISO 13997:1999)	CE
BS EN 342:2004	Protection against cold	CE
BS EN 343:2003+A1:2007	Protection against foul weather	

Fall Arrest Equipment

EN 341:2011	Descender Devices	CE
BS EN 360:2002	Retractable type fall arresters	CE
BS EN 361:2002	Full Body Harnesses	CE
BS EN 362:2004	Connectors	CE
BS EN 795:2012	Anchor points	CE
BS EN 813:2008	Sit harnesses	CE
BS EN ISO 12401:2009	Deck safety harness and safety line for use on recreational craft	CE
BS EN 1496:2006	Rescue lifting devices	
BS EN 1497:2007	Rescue harnesses	
BS EN 1498:2006	Rescue loops	
BS EN 358:2000	Work positioning belts	CE
BS EN 1891:1998	Low stretch kernmantel ropes	CE

Key:

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Should you be interested in BSI Kitemark certification for products not currently shown as having a BSI Kitemark scheme, please **contact us** to discuss your requirements.