











FeRFA GUIDE TO PERSONAL PROTECTIVE EQUIPMENT FOR USE WITH IN-SITU RESIN FLOORS & SURFACE PREPARATION






QUICK REFERENCE SHEET

PRODUCT	ACTIVITY	PPE REQUIRED							DO NOT		
											
FeRFA Type 1&2	Mixing	✓	✓	✓	✓	✓	✓		✓	✓	✓
Seals & Coatings	Laying		✓	✓		✓	✓		✓	✓	
FeRFA Type 3	Mixing	✓	✓	✓	✓	✓	✓		✓	✓	✓
High Build	Laying		✓	✓		✓	✓		✓	✓	
FeRFA Type 4	Mixing	✓	✓	✓	✓	✓	✓		✓	✓	✓
Multi Layer	Laying		✓	✓		✓	✓		✓	✓	
FeRFA Type 5	Mixing	✓	✓	✓	✓	✓	✓		✓	✓	✓
Flow Applied	Laying	✓	✓	✓		✓	✓		✓	✓	
FeRFA Type 6	Mixing	✓	✓	✓	✓	✓	✓		✓	✓	✓
Resin Screed	Laying	✓	✓	✓		✓	✓	✓	✓	✓	
FeRFA Type 7	Mixing	✓	✓	✓	✓	✓	✓		✓	✓	✓
Heavy Duty	Laying		✓	✓		✓	✓	✓	✓	✓	
FeRFA Type 8	Mixing	✓	✓	✓	✓	✓	✓		✓	✓	✓
Heavy Duty	Laying	✓	✓	✓		✓	✓	✓	✓	✓	
Surface preparation	Shotblasting Grinding Planing Multistripping	✓	✓	✓	✓	✓	✓		✓		

KEY

	EYE PROTECTION		OVERALLS		GLOVES		DUST MASK
	HARD HAT		SAFETY SHOES		KNEE PADS		ARM SHIELDS

	NO EATING/DRINKING		NO SMOKING		NO NAKED FLAMES
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This sheet is a quick general guide and is not exhaustive. It does not cover all products and does not replace advice given by your product producer. If in doubt you should consult your manufacturer/supplier for more information.

1. INTRODUCTION

All employers have basic duties concerning the provision and use of personal protective equipment (PPE) at work. This guide explains the type of PPE required to undertake the various operations involved with surface preparation and the installation of synthetic resin flooring systems. The guide is based on the Personal Protective Equipment at Work Regulations 1992 (as amended) and Control of Noise at Work Regulations 2005.

2. WHAT IS PPE?

PPE is defined in the Regulations as ‘all equipment (including clothing affording protection against the weather) which is intended to be worn or held by a person at work and which protects him against one or more risks to his health or safety’, e.g. safety helmets, gloves, eye protection, ear protection, high-visibility clothing, safety footwear and safety harnesses. In terms of surface preparation and resin flooring, the following items of PPE should be provided as a minimum and used by the operative where applicable:

- Safety goggles
- Gloves
- Protective clothing/Hi Visibility
- Arm shields
- Barrier creams
- Safety Shoes
- Dust masks & filters
- Hard hats

To allow the correct type of PPE to be chosen, carefully consider the different hazards in the workplace and the activity to be undertaken. The method statement and risk assessment will clearly state where and how PPE should be worn. For more specific information regarding different types of resin systems, the manufacturer’s advice should be sought as to the PPE requirements when handling these materials. The type of gloves, in particular, will vary in accordance with the resin material being installed. When selecting gloves, always ensure the glove material meets with the specific requirements of the risk assessment of the activity undertaken. To protect the wearer, gloves must be of the correct size, used properly, removed in a safe manner to avoid contaminant getting inside the glove or in contact with the skin, and disposed of in a designated waste facility.

Ensure that the PPE is “CE” marked and complies with the requirements of the Personal Protective Equipment Regulations 2002. The CE marking signifies that the PPE satisfies certain basic safety requirements and in some cases will have been tested and certified by an independent body.

Remember, the prime requirement of PPE is to protect the wearer, and to do this all items should be of the correct size for the wearer and should be worn correctly

3. MAINTENANCE OF PPE

It is essential that all equipment is well looked after, properly stored when not being used, for example eye protection should be stored in a box or case. All PPE items should be kept clean, in good repair and inspected regularly. Any damaged PPE should not be used, and should be replaced immediately. The life expectancy of PPE materials varies depending upon the item and use. For example, gloves and protective clothing such as arm shields should not be used for more than a day unless the manufacturer can guarantee extended use.

4. SKIN PROTECTION

Skin care products help to maintain the skin in good condition and retain its protective function. The main types of skin care products are pre-work creams, also known as barrier creams, skin cleansers and after-work creams. Pre-work/barrier creams are formulated to provide a semi-resistant barrier between chemicals and the skin. They DO NOT function as protective gloves, but will facilitate the cleaning process by allowing the use of less powerful cleansers. After-work creams restore the moisture content of the skin and provide a valuable contribution to reducing the risk of irritant dermatitis. These creams should be used at the end of each work shift or after washing the hands.

5. SELECTING SUITABLE PPE

The following tables give guidance on the items of PPE to be worn whilst undertaking various activities, with particular reference to the specific type of synthetic resin flooring material being applied.

RESIN FLOORING	ACTIVITY	PPE ITEMS	BS REF	COMMENT
EPOXY SYSTEMS				
FeRFA Types 1-8	Mixing	Hard Hat Safety glasses/face shield Dust mask Gloves Protective/Hi Vis Clothing Arm shields Safety Shoes Barrier cream	BS EN 397 BS EN 166 BS EN 140 BS 1651/EN420 BS EN 471 BS EN345	Observe site hard hat policy at all times PVC
FeRFA Types 1-8	Laying	Hard Hat Safety glasses Gloves Protective Clothing Safety Shoes Barrier Cream	BS EN 397 BS EN 166 BS1650/EN420 BS EN 471 BS EN 345	Observe site hard hat policy at all times PVC
FeRFA Type 8 Epoxy Terrazzo	Grinding Polishing	Hard Hat Safety glasses Hearing protection Gloves Protective clothing Hi Visibility clothing Face mask Particle filters Safety Shoes	BS EN 397 BS EN166 BS EN 352 BS 1651/EN420 BS EN 471 BS EN 140 BS EN 143 BS EN 345	Observe site hard hat policy at all times PVC
POLYURETHANE SYSTEMS				
FeRFA Types 1-8	Mixing	Hard Hat Safety goggles/face shield Dust mask Gloves Protective/Hi Vis Clothing Arm shields Safety Shoes Barrier Cream	BS EN 397 BS EN 166 BS EN 140 BS 1651/EN420 BS EN 471 BS EN 345	Observe site hard hat policy at all times Nitrile rubber
FeRFA Types 1-8	Laying	Hard Hat Safety glasses Gloves Protective/Hi Vis Clothing Safety Shoes Barrier Cream	BS EN 397 BS EN 166 BS 1651/EN420 BS EN 471 BS EN 345	Observe site hard hat policy at all times Nitrile rubber
FeRFA Type 8 Terrazzo systems	Grinding & Polishing	Hard Hat Safety glasses Hearing protection Gloves Protective clothing Hi Visibility clothing Face mask Particle filters Safety Shoes	BS EN 397 BS EN166 BS EN 352 BS 1651/EN420 BS EN 471 BS EN 140 BS EN 143 BS EN 345	Observe site hard hat policy at all times Industrial grade gloves

RESIN FLOORING	ACTIVITY	PPE ITEMS	BS REF	COMMENT
MMA SYSTEMS				
FeRFA Types 1-7	Mixing	Hard Hat Safety goggles/face shield Dust mask Gloves Protective/Hi Vis Clothing Arm shields Safety Shoes Barrier Cream Ventilation Equipment	BS EN 397 BS EN 166 BS EN 140 BS1651/EN420 BS EN 471 BS EN 345 BS EN141/405	Observe site hard hat policy at all times Butyl Rubber Training required for user
	Laying	Hard Hat Safety glasses Gloves Protective/Hi Vis Clothing Safety Shoes Barrier Cream	BS EN 397 BS EN 166 BS 1651/EN420 BS EN 471 BS EN 345	Observe site hard hat policy at all times Butyl Rubber

FLOOR PREPARATION

ACTIVITY	PPE ITEMS	BS REF	COMMENT
Shotblasting	Safety glasses Hearing protection Safety shoes Gloves Hi Visibility clothing Hard hat Face mask Particle filters	BS EN 166 BS EN 352 BS EN 345/356 BS1651/EN420 BS EN 471 BS EN 397 BS EN 140 BS EN 143	Impact grade 2 Must match attenuation of sound source Includes steel mid-sole Industrial grade gloves Heavy duty Half/quarter mask
Grinding	Safety Glasses Dust goggles Hearing protection Safety shoes Gloves Hi Visibility clothing Hard hat Face mask Particle filters	BS EN166 BS EN 166-4 BS EN 352 BS EN/345/356 BS1651/EN420 BS EN 471 BS EN 397 BS EN 140 BS EN 143	Must match attenuation of sound source Includes steel mid-sole Industrial grade gloves Heavy duty Half/quarter mask
Planing	Safety Glasses Dust goggles Hearing protection Safety shoes Gloves Hi Visibility clothing Hard hat Face mask Particle filters	BS EN166 BS EN 166-4 BS EN 352 BS EN/345/356 BS1651/EN420 BS EN 471 BS EN 397 BS EN 140 BS EN 143	Must match attenuation of sound source Includes steel mid-sole Industrial gloves Heavy duty Half/quarter mask
Multi-Stripping	Safety Glasses Dust goggles Hearing protection Safety shoes Gloves Hi Visibility clothing Hard hat Face mask Particle filters	BS EN166 BS EN 166-4 BS EN 352 BS EN/345/356 BS1651/EN420 BS EN 471 BS EN 397 BS EN 140 BS EN 143	Must match attenuation of sound source Includes steel mid-sole Industrial gloves Heavy duty Half/quarter mask

6. TYPES OF RESIN FLOORING

The FeRFA Classification details the types of resin flooring systems as follows:

TYPE	NAME	DESCRIPTION	DUTY	TYPICAL THICKNESS
1	Floor seal	Applied in two or more coats. Generally solvent or water borne	LD	Up to 150 µm
2	Floor coating	Applied in two or more coats. Generally solvent free.	LD/MD	150 µm to 300 µm
3	High build Floor coating	Applied in two or more coats. Generally solvent free.	MD	300 µm to 1000 µm
4	Multi-layer Flooring	Aggregate dressed systems based on multiple layers of floor coatings or flow-applied floorings, often described as 'sandwich' systems.	MD/HD	> 2 mm
5	Flow applied Flooring	Often referred to as 'self-smoothing' or 'self-levelling' flooring and having a smooth surface.	MD/HD	2 mm to 3 mm
6	Resin screed flooring	Trowel-finished, heavily filled systems, generally incorporating a surface seal coat to minimize porosity.	MD/HD	> 4 mm
7	Heavy Duty Flowable flooring	Having a smooth surface.	HD/VHD	4 mm to 6 mm
8	Heavy Duty resin flooring	Trowel-finished, aggregate filled systems effectively impervious throughout their thickness.	VHD	> 6 mm

Light duty (LD) light foot traffic, occasional rubber tyred vehicles
 Medium duty (MD) regular foot traffic, frequent fork lift truck traffic, occasional hard plastic-wheeled trolleys
 Heavy duty (HD) constant fork lift truck traffic, hard plastic wheeled trolleys, some impact
 Very heavy duty (VHD) severe heavily loaded traffic and impact

7. GENERAL TIPS & ADVICE

DO

- Check the health/hazard risk of the activity involved and always wear the PPE specified for each operation
- Always follow advice in the Method Statement and Risk Assessment
- Replace worn out PPE immediately
- Make sure replacement PPE is readily available
- Ensure PPE items fit correctly
- Regularly inspect PPE and store correctly
- Stop work activity if PPE is not adequate
- Use tools and methods which will prevent skin contact with hazardous substances
- Seek medical advice if there are concerns about the condition of the skin

DO NOT

- Do not commence work activity without the correct PPE being worn
- Do not borrow PPE from colleagues
- Do not wear damaged PPE
- Do not use barrier creams as a replacement for protective gloves
- Do not allow skin to come into contact with contaminated tools, clothing and surfaces.

8. SAFE GLOVE REMOVAL

To avoid contaminants coming into contact with the skin, it is essential that gloves are removed and disposed of correctly:

Safe Glove Removal

Careful removal avoids contact with the outer surface of the glove.



1 Pull glove off at fingertips



2 Crumple glove into a ball



3 With the cuff of the removed glove nip the cuff of the second glove



4 Pull the second glove inside out over the first glove

9. STANDARDS AND PUBLICATIONS

- The Health and Safety at Work Act 1974
- HMSO 1974 ISBN 0 10 543774 3
- Personal protective equipment at work. The Personal Protective Equipment at Work Regulations 1992 Guidance on Regulations L25 1992 HSE Books ISBN 0 7176 0415

10. FeRFA PUBLICATIONS

All FeRFA publications (listed below) are freely downloadable from FeRFA's web site at www.ferfa.org.uk

- FeRFA Guide to the selection of synthetic resin floors
- FeRFA Guide to the specification & application of synthetic resin floors (RIBA CPD Approved)
- Static controlled flooring
- Chemical resistance of resin flooring
- Osmosis in resin flooring
- Assessing the slip resistance of resin floors
- FeRFA Guide to installing resin flooring systems onto substrates with a high moisture content
- Cleaning resin floors
- Guide to PPE for use with in situ resin floors and floor preparation
- Guide to seamless resin terrazzo
- Flowable polymer screeds as underlayments for resin floor finishes



References:

- 1 The Health and Safety at Work etc Act 1974 HMSO 1974 ISBN 0 10 543774 3
- 2 The Personal Protective Equipment at Work Regulations 1992
- 3 The Control of Substances Hazardous to Health Regulations 1999 (COSHH)
- 4 BS 8204-6:2008 Screeds, bases and in situ floorings – Part 6 Synthetic resin floorings – Code of practice