

Apply thin film reactive coatings

Overview

This standard is about interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment, preparing and repairing background surfaces and applying thin film reactive coatings to structural elements by brush, roller and spray

This standard is for people working in the occupational area of passive fire protection and can be used by operatives, supervisors and managers

Apply thin film reactive coatings

Performance criteria

You must be able to:

- P1 interpret the given information relating to the work and resources to confirm its relevance
- P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
- P3 select the required quantity and quality of resources for the methods of work
- P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
- P5 comply with the given contract information to carry out the work efficiently to the required specification
- P6 complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate **information** and unsuitable **resources**, and how they are implemented
- K2 the types of **information**, their source and how they are interpreted
- K3 the organisational procedures to solve **problems** with the **information** and why it is important they are followed

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of **information** for relevant, current **legislation and official guidance** and how it is applied
- K5 the types of **fire extinguishers** and how and when they are used
- K6 how **emergencies** should be responded to and who should respond
- K7 the organisational **security procedures** for tools, equipment and personal belongings
- K8 what the accident reporting procedures are and who is responsible for making the report
- K9 why, when and how **health and safety control equipment** should be used
- K10 how to comply with environmentally responsible work practices to meet current **legislation and official guidance**

Performance Criteria 3

Selection of resources

- K11 the characteristics, quality, uses, sustainability, limitations and defects associated with the **resources** and how defects should be rectified
- K12 how the **resources** should be used and how any **problems** associated with the **resources** are reported
- K13 the organisational procedures to select **resources**, why they have been developed and how they are used
- K14 the **hazards** associated with the **resources** and **methods of work** and how they are overcome

Performance Criteria 4

Minimise the risk of damage

K15 how to **protect work** from damage and the purpose of protection

K16 why **disposal of waste** should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K17 how **methods of work**, to meet the specification, are carried out and **problems** reported

K18 how **maintenance** of tools and equipment is carried out

Performance Criteria 6

Allocated time

K19 what the **programme** is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Apply thin film reactive coatings

Scope/range related to performance criteria **Performance Criteria 1**

1 interpretation of drawings, specifications, schedules, method statements, risk assessments, work instructions, fire performance documentation/certification, and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to the following

2.1 methods of work and safety control measures

2.2 safe use of health and safety control equipment

2.3 safe use, storage and handling of access apparatus, working platforms and tools

2.4 safe use, storage, handling and application of materials

2.5 specific risks to health and the environment

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials and components

3.2 tools and equipment

Performance Criteria 4

4 protection of the work and its surrounding area from damage

5 maintain a clean work space

6 disposal of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to wash, abrade, stir, mix, apply and measure
- 8 review and record substrate and ambient conditions
- 9 use and maintain hand tools, portable power tools and ancillary equipment
- 10 prepare or repair substrates
- 11 stir one pack or mix two pack systems
- 12 apply and measure thin film reactive coatings to surfaces by spray, brush and roller to given working instructions

Performance Criteria 6

- 13 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

Apply thin film reactive coatings

Scope/range related to knowledge and understanding

Disposal of waste

1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

2.1 fires, spillages, injuries

2.2 emergencies relating to occupational activities

Fire extinguishers

3 water, CO₂, foam, powder and their uses

Hazards

4 those identified by risk assessment, methods of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

5 identified by the principles of prevention for occupational use, types and purpose of each type, work situations and general work environment

5.1 collective protective measures

5.2 local exhaust ventilation (LEV)

5.3 personal protective equipment (PPE)

5.4 respiratory protective equipment (RPE)

Information

6 drawings, specifications, schedules, method statements, risk assessments, work instructions, fire performance documentation/certification, manufacturers' information, official guidance, Codes of Practice, guidance documents and current regulations/guidance relating to applying thin film reactive coatings

Legislation and official guidance

7 this relates to the operative's responsibilities regarding potential accidents, health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials, substances and with movement/storage of materials by manual handling and mechanical lifting

Maintenance

8 operative care of hand tools, portable power tools and ancillary equipment

Methods of work

9 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to

9.1 identify and follow the installation quality requirements

9.2 identify different types of substrate

9.3 review and record substrate and ambient conditions

9.4 measure the primer dry film thickness (DFT)

9.5 establish the integrity of the substrate

9.6 prepare and repair substrates

9.7 apply and measure thin film reactive coatings to surfaces by spray, brush and roller

9.8 control wet film thickness (WFT)

9.9 understand the loading/thickness tables and the relationship between DFT and WFT

9.10 repair defective and damaged coatings

9.11 apply top-coat

9.12 review the quality of the application including dry-film thickness (DFT)

9.13 check and clean application equipment to manufacturers' instructions

9.14 understand the implications of the generic interfaces between system types

Apply thin film reactive coatings

- 9.15 recognise and determine when specialist skills and knowledge are required and report accordingly
- 9.16 recognise specific requirements for structures of special interest, traditional build (pre 1919) and historical significance
- 9.17 work with, around and in close proximity to plant and machinery
- 9.18 direct and guide the operations and movement of plant and machinery
- 9.19 use hand tools, portable power tools and equipment ensuring electrical equipment has an appropriate portable appliance test (PAT)
- 9.20 work at height using access equipment
- 10 the effects of changing environmental conditions on the application process
- 11 selection of material thickness for fire resisting requirements
- 12 team work and communication
- 13 needs of other occupations in the proximity of the working area

Problems

- 14 those arising from information, resources and methods of work
 - 14.1 own authority to rectify
 - 14.2 organisational reporting procedures

Programme

- 15 ability to work to timescales and deadlines
- 16 organisational procedures for reporting circumstances which will affect the work programme

Protect work

- 17 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

- 18 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist
- 18.1 primers, detergents, fillers, tie coats, scrim tape, masking
- 18.2 thin film reactive base coats and top coats
- 18.3 hand tools, portable power tools and equipment
- 19 confirm resources and materials conform with the specification
- 20 methods of measuring quantity, thickness, volume, area and wastage associated with the method/procedure to apply thin film reactive coatings

Security procedures

- 21 site, workplace, company, operative, vehicles and tools

Apply thin film reactive coatings

Developed by	Construction Skills
Version Number	3
Date Approved	July 2017
Indicative Review Date	August 2022
Validity	Current
Status	Original
Originating Organisation	ConstructionSkills
Original URN	VR351
Relevant Occupations	Construction Operatives
Suite	Associated Industrial Services Occupations (Construction)
Keywords	Brush; Roller; Spray; Coating-thickness