Unit 227: Apply solid render to background surfaces and produce finishes

# Delivery guide

Unit information

This unit is about interpreting information and adopting safe, healthy and environmentally responsible work practices. It covers selecting and using materials, components, tools and equipment, preparing materials, applying solid render to external backgrounds and producing finishes.

Learners may be introduced to this unit by asking themselves questions such as:

* What is the purpose of rendering buildings?
* What types of surfaces can you apply external render to?
* What is the difference between traditional and modern renders?

Learning outcomes

1. Understand resource selection
2. Understand working to a contract specification
3. Comply with the given contract information to carry out the work safely and efficiently to the required specification

Suggested resources

Textbook

Gashe, M. and Byrne, K. (2020) *The City & Guilds Textbook in Plastering for Levels 1 and 2 Diploma (6708) and Level 2 Technical Certificate (7908).* London: Hodder Education.

ISBN 978-1-39830-647-9

Websites

* [City & Guilds | Construction SmartScreen Factsheet Level 2 Technical Certificate in Plastering (7808-20)](https://www.cityandguilds.com/-/media/cityandguilds-site/documents/what-we-offer/centres/smartscreen/smartscreen-docs/7908-20-level-2-technical-certificate-in-plastering-pdf.ashx?la=en&hash=4242CFF99D985A7769335B23CCCB84852A3BB0EC)
* [HSE | Health and Safety at Work Act 1974: explained](https://www.hse-network.com/health-and-safety-at-work-act-1974-explained)
* [HSE | Work at Height: the law](https://www.hse.gov.uk/work-at-height/the-law.htm)
* [HSE | Work equipment machinery: PUWER](https://www.hse.gov.uk/work-equipment-machinery/puwer.htm)
* [K Rend | Silicone Thin Coat: Machine Application](https://k-rendcontractors.co.uk/k-rend-application/)
* [Period Restoration Guide | Lime Rendering](https://www.periodrestorationguide.co.uk/lime/lime-rendering.php)
* [SPAB | Lime renders vs cement renders](https://www.spab.org.uk/advice/lime-renders-vs-cement-renders)

| **Learning outcomes** | **Criteria** | **Delivery guidance** |
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| 1. Understand resource selection | * 1. Characteristics of the resources | * Learners to understand how to interpret drawings, specifications, schedules, method statements and risk assessments. * Learners to be able to assess the condition of materials and components for suitability, compatibility and correct use. * Learners to be able to set aside inappropriate materials and components and report problems to the correct level of authority to mitigate and rectify problems that they may cause to work standards and schedules. * Learners to state quality and condition of materials when taking deliveries to site and to know how to report any defective materials that are not fit for purpose. * Learners to identify a range of manufacturers that produce plastering materials within specifications. * Learners to select, apply and finish various plastering systems to set standards outlined in the specification. * Learners to research traditional lime render pre-1919. * Learners to research cement renders post-1919. * Learners to compare cement render versus lime render. * Learners to research modern render systems that are currently widely used. * Learners to identify which materials to be used come under Control of Substances Hazardous to Health (COSHH) Regulations. * Learners to recap Manufacturers’ Technical Information (MTI) and COSHH. |
| * 1. Use of resources | * Learners to understand types of backgrounds for application of render systems. * Learners to be able to read and understand MTI and specifications to be able to select the correct resources. * Learners to complete a task on how to report any issues on background preparation and applications of render and components. |
| * 1. Organisational procedures to select resources | * Learners to understand and be familiar with organisational documents such as drawings, manufacturers’ information, specifications, schedules and MTIs. * Learners to review example documents and undertake training procedures to familiarise themselves with the use of the above resources. * Learners to have an awareness of how to ensure quality before, during and after applications when preparing, mixing, applying and finishing rendering work to industry standard. * Learners to know how to report to line manager if there are inaccuracies in documentation. |
| * 1. Hazards | * Learners to be able to produce and understand Risk Assessment Method Statements (RAMS). * Learners to identify the types of problems arising from unsuitable resources and potential hazards, including unsuitable materials, adverse weather conditions and changing circumstances. * Learners to review example documents and undertake training procedures to familiarise themselves with the use of the resources in 1.3. * Learners to understand what an induction process and toolbox talks are and how they advise on the use of Personal Protective Equipment (PPE) and their responsibility for reporting of accidents and near misses in conjunction with the Health and Safety at Work Act (HASAWA). * Learners to understand the chain of command and who to report to in the event of hazards, accidents or near misses. |
| 1. Understand working to a contract specification | * 1. Methods of work | * Learners to be familiar with a Gantt chart work programme for carrying out a rendering contract. * Learners to review example documents and undertake training procedures to familiarise themselves with the use of the above resources. * Learners to understand the differentiation of a method statement and a work programme and give examples. * Learners to know the effect of failing to meet programme deadlines and the effect it has on the contract and other trades. |
| * 1. Tools and equipment | * Learners to research and understand when Portable Appliance Testing (PAT) must be done for the safe use of electrical tools. See *City & Guilds Textbook in Plastering Level 1 Diploma (6708), Level 2 Diploma (6708) and Level 2 Technical Certificate (7908)*, p69. * Learners to have an awareness of the Provision and Use of Work Equipment Regulations (PUWER). * Learners to state what types of access equipment they must be aware of and understand how to use them safely while conforming to the Working at Height Regulations (WAH) 2005. * Learners to know how to understand a method statement to assist in the correct selection of tools and equipment to complete tasks such as preparation of backgrounds, correct fixing of beads and applications of rendering systems. |
| 1. Comply with the given contract information to carry out the work safely and efficiently to the required specification | * 1. Prepare at least one of the following background surfaces to given working instructions: brick, block, concrete, rubble stone masonry, expanded metal lath (EML), external insulation | * Learners to have an overall knowledge of background preparation for all types of backgrounds including traditional application, cement-based render application and modern application. See *City & Guilds Level 1 and 2 Diploma and Level 2 Technical Certificate Textbook in Plastering*, pp22–24. * Learners to undergo practical training on background preparation for brick and block backgrounds. * Learners to have knowledge of accessories, additives, bonding agents, components, reinforcements, insulation and beads to prepare background surfaces for installation. |
| * 1. Measure, cut and set out components | * Learners to complete calculation tasks for measuring the following, including an agreed percentage for waste: * cutting and fixing beads * cutting and fixing alkali-resistant reinforcement mesh cloth * fixing stress patches. * Learners to have practical training for selecting resources and components for fixing beads, forming and fixing hard angles, fixing Expanded Metal Lath (EML), fixing External Wall Insulation (EWI), fixing alkali-resistant reinforcement mesh cloth and stress patches. See *City & Guilds Level 1 and 2 Diploma and Level 2 Technical Certificate Textbook in Plastering*, Ch4. * Learners to use linear, area and perimeter measurements for calculating materials. |
| * 1. Application of base coats, reinforcing mesh and stress patches | * Learners to have practical training in the application of traditional and modern base coat renders including reinforcement applications and methods for reinforcing and preparing for receiving subsequent render application. |
| * 1. Demonstration of work skills to mix, apply and finish internal and external angles, walls, reveals and soffits including render features | * Learners to have practical training on: * setting up and fixing of beads * application when forming and finishing returns, heads, reveals and features * preparing and forming render features such as window bands, quoin stones, key stones and plinth. See *City & Guilds Level 1 and 2 Diploma and Level 2 Technical Certificate Textbook in Plastering*, Ch4. |
| * 1. Use and maintain hand tools, portable power tools, mechanical equipment and resources to produce a plain-faced finish coat to external walls plus at least one of the following finishes to given working instructions: dry dash, rough-cast, tyrolean, synthetic or non-synthetic renders, silicone textured, cement-based scrape texture, pre-blended or pre-mixed | * Learners to demonstrate knowledge of use of hand tools, power tools and mechanical equipment. * Learners to have practical training on applying traditional two coat plain-faced render finish. * Learners to have practical training on modern through coloured render scraped texture finish. * Learners to have a knowledge and understanding of modern pre-blended and premixed render systems and finishes, e.g. EWI systems, thin coat silicone, dry dash, rough-cast, tyrolean, textured, etc. * Learners to have a knowledge of hand application and machine application of modern render systems. See *City & Guilds Level 1 and 2 Diploma and Level 2 Technical Certificate Textbook in Plastering*, Ch4. |