Finishing Construction Work Level II

Learning Guide-102

Unit of Competence: Prepare & apply grout, Adhesive and sealant

Module Title: Preparing & applying grouting, Adhesive and sealant

LG Code: EIS FCW2 M22 LO3-LG-102

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LO 3: Mix primers and adhesives on site

Instruction Sheet	Learning Guide 102

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics:

- Mixing Primers and adhesives.
- Observe Safety procedures

This guide will also assist you to attain the learning outcome stated in the cover page.
Specifically, upon completion of this Learning Guide, you will be able to:

- Mix Primers and adhesives in accordance with specifications.
- Observe Safety procedures specified for type of primer and adhesive.

Learning Instructions:

1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below.
3. Read the information written in the information Sheet
4. Accomplish the Self-check
5. If you earned a satisfactory evaluation from the “Self-check” proceed to Operation Sheet
6. Do the “LAP test” (if you are ready).

Information Sheet-1	Mixing Primers and adhesives

3.1. Mixing Primers and adhesives

What is a primer?

A primer is a liquid product, which can be either latex, epoxy or polyurethane based, and is used to create better adhesion onto the substrate before tiling or screening commences. The function of a primer is to prepare the surface and increase the bond of the adhesive, screed and waterproofing compounds onto the surface.

A primer is a paint; a coat of paint that is applied directly to the bare substrate. The word ‘primer’ means ‘first’ and in this case it is the first coat to be applied to the timber, steel or other surface to be coated. The primer is the most important coat of paint a substrate receives. The final paint system is totally dependent on the primer during its job. The primer will only be able to perform well if the surface preparation has been done well.

• Primers are the anchors for the new paint system. There are big differences in the quality of primers on the market.

• A primer is wasted if surface preparation is not thorough.

• Take time to ensure all surfaces are thoroughly clean and free from contaminants.

• Remove sharp edges from timber and steel wherever possible.

• With new work most priming may need to be done before erection. Planning is needed.

The main functions of primers

Primers have varying roles on different substrates but the main functions are:

• To provide excellent adhesion to the substrate for the new paint system. Primers therefore need to have good adhesion to the substrate themselves and to provide a surface that subsequent coats of paints can easily adhere to.

• To provide protection to the substrate until it can be top coated. This is why it is very important to have exterior wood primers in colors that block out U.V. light.

• To inhibit moisture reaching the substrate.

• To seal the surface and prevent subsequent coats of paint sinking into the substrate and losing gloss.

• To stop stains. Special primers can help to prevent stains and tannins from bleeding through into the topcoats and ruining the finished job. This particularly applies to staining timbers such as Cedar or Redwood.

• Some primers, particularly those for wood have built-in fungicides to help prevent mould growth.

• To prevent corrosion of nail heads higher quality wood primers contain anti-corrosive pigments.

• To provide adhesion to non-ferrous metals and to stop these metals from corroding.

• To prevent steel from rusting.

TAL provides a range of primers to prepare the surface prior to the application of tiling adhesives, screeding and waterproofing compounds. The TAL range of primers consists of TAL KEYCOAT, TAL FLOOR PRIMER, TAL FLOORKEY, TAL EPOXY PRIMER and TAL SUPERPRIME.

Additives

An additive is a liquid product made with latex and is designed to be used as a water substitute in the cement-based adhesive and grout mix when tiling or grouting external areas, wet areas, high traffic areas and areas where some flexibility is required. TAL's range of additives includes TAL BOND and TAL SCREEDBINDER.

TAL BOND additive improves the bond strength, flexibility and water-resistance when added to cement-based adhesives and grouts.

It is important to use an additive when installing tiles in wet areas, such as showers, and exterior applications. Additives make the tile installation less susceptible to water penetration and also increase the flexibility of the adhesive and grout.

When using an additive in the adhesive or grout mixture, it is important to use the full amount of additive as stipulated in the instructions on the packaging. Do not dilute the mix with water as diluting the latex will compromise the flexibility and water-resistance of the adhesive or grout.

TAL SCREEDBINDER additive improves the bond strength and flexibility when added to TAL SUPERSCREED, which is used to level imperfections in flooring surfaces. When mixing TAL SCREEDBINDER with TAL SUPERSCREED, the screening compound can be used as a protective barrier over cero.

An adhesive primer is product designed to improve the effectiveness of an adhesive, and is basically used to pre-treat the substances that are about to be attached together. It's particularly popular with porous surfaces that might otherwise absorb the adhesive, and is also used frequently in very low temperature situations. It's often hard for even the strongest industrial glues to work well in environments that are consistently below freezing, and using a primer can help construction workers and others get better results. Most primers are latex-based, and usually come as either a spray or a paint. They're normally fairly easy to use, though people often need to take care to be sure the area is thoroughly cleaned and dry before beginning the application.

One of the most common uses for adhesive primers is when binding one or more porous substances. Permanently adhering nearly anything to a porous substance is often really difficult. The problem is that, because the substrate is porous, it will absorb the adhesive and shorten the usable life of the carpet, linoleum, or other material that should remain glued down for a long time. Primers are used to increase the bonding quality of any adhesive, whether it is pre-applied, as with peel-and-stick tile, or if it must be spread, as with many types of carpeting.

Self-Check -1	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1/ what is the function of primer? *(5points)*

2/ Primers are used to increase the bonding quality of any adhesive (true/false)?

3/ cold materials bond to adhesive more readily than do warm materials (true/false)?

Note: **Satisfactory rating - 3 and 5 points** **Unsatisfactory - below 3**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Short Answer Questions

Information Sheet-2	Applying Safety procedures

3.2 Applying Safety procedures

General Usage Instructions

The area that will be primed should be ready to go before the primer is applied to the substrate. This means that the area to be primed, the primer, and the adhesive should be kept at or above 65°F (18.3°C) for at least 48 hours before and 48 hours after the primer and adhesive are installed. This will ensure that the primer dries evenly, and that the adhesive itself will dry correctly. Warm materials bond to adhesive more readily than do a cold material, which means that acclimatizing the environment and materials is also really important.

When applying adhesive primer, a short nap paint roller or a coarse fiber brush should be used. If puddles form during application, they should be rolled or brushed through so they will not become a bonding issue when the adhesive is applied. In nearly all cases the primer should be used at full strength, and tools can be cleaned with warm water.

Considerations before getting started

The amount of coverage that will be provided with a given amount of adhesive primer will vary depending on the porosity and the smoothness of the substrate, but there are still some things users can do before application to help improve their results. Rougher substrates should be smoothed as much as possible with a patching and leveling compound. The compound should be dried and cured according to the manufacturer's recommendations getting started with the primer. It's also really important to be sure the substrate is clean. This means that it is free of any kind of surface contaminants that will prevent the primer from working at its ideal level. Any dust, dirt, wax, polish, paint, oil, grease, or other contaminants that will interfere with effective material bonding should be removed. The substrate must also be in good, usable condition

Self-Check -1	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

1) The substrate must also be in good, usable condition. *(2points)*

2) the area to be primed, the primer, and the adhesive should be kept at or above 65°F (18.3°C) for at least 48 hours before and 48 hours after the primer and adhesive are installed. *(3points)*

Note: Satisfactory rating - 3 and 5 points Unsatisfactory - below 3

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Short Answer Questions

prepare operation sheet LAP test and list of references

Answer keys for learning guide -103

Self check 1

1. The function of a primer is to prepare the surface and increase the bond of the adhesive, screed and waterproofing compounds onto the surface.

2/true

3/false

Self check 2

1. True

2. True