

## *Facade rendering of prefabricated façade elements*

Pre-conditions

Preparation

Self-inspection

Execution



This **work instruction** is designed for use in detailed planning and preparation of work on construction projects. With thorough planning high levels of personal safety and optimal work apportionment can be achieved at the same time as the work can be organized efficiently and cost effectively.

Work activity & Problem	P	C	Risk= P*C	Action
Overloading, straining	10	70	700	Scaffolding with good workspace
Rain, wind, cold, heat	90	2	180	Climate Protection to scaffolding
Fall from ladder	10	15	150	
Cluttered workplace = Twist/fall injuries	10	15	150	Regular tidying

Probability = P	P = 0,1	<b>Assessment of probability</b>	C=0,5	<b>Assessment of consequences</b>	
Consequence = C	P = 1	Very unlikely (<1 times/10 years)	C=1	Trifle	
Risk = P * C	P = 3	Unlikely (1 times/10 years)	C=5	Tiny	( 1 - 2 days sick leave)
	P = 10	Low probability (1 times/3 years)	C=15	Small	( 3 - 7 days sick leave)
	P = 30	Relative probability (1 times/year)	C=70	Tactile	( 8 - 29 - " - )
		Probable (1 times/month)	C=500	Severe	(30-299 - " - )
				Very severe	(>300 - " - )

*Text from the Working Environment Authority's brochure Safer Construction Work*

## **Personal Protective Equipment § 71**

Safety helmet and safety shoes should be used unless it is clearly unnecessary. Other personal protective equipment such as eye protection, hearing protection and gloves should be worn when necessary.

## **Scaffolding**

## Equipment and materials

**Basic equipment:**

- Automatic Mixer with pump, hoses and nozzles
- Water Bucket/Plasterer's bucket
- Trowels, various sizes
- Spirit level
- Wheelbarrow
- Water Broom
- Wiping board
- Wire brush
- Water hose with spray nozzle

**Materials:**

- Protective material: Tape and plastic sheeting
  - Rendering mortar
  - Plaster
  - Water
  - Reinforcement net
- Read the product sheet for each product before use.*

## Prepare for the rendering work

Cover the frames etc. that shall not be rendered. Repair damage in the undersurface and joint at abutments with other materials and in crevices.

To avoid lines in the facade after scaffolding etc., the scaffolding shall be placed away from the wall so that it is possible to spray freely. To avoid contamination of the render surfaces, the scaffolding should be constantly cleaned.

Protect new render against heavy rain and strong sunlight.

When mixing mortar do not water from the hose that has been in strong sunlight. Always trim the render away from wood surfaces since render and wood have different coefficients of expansion.

## During the cold season

Newly applied render shall not be exposed to frost. When heated, the relative humidity is low and watering is required.

Finished render shall after watered and kept moist for at least 3 days. Otherwise, there is a risk of poor strength. Use a hose with a fine spray nozzle.



## Render Mixing Station- mixer with pump

Hoses shall reach the sites of the rendering.

Plan for the refuse - rendering and reinforcement.  
Wheelbarrow and a container nearby.

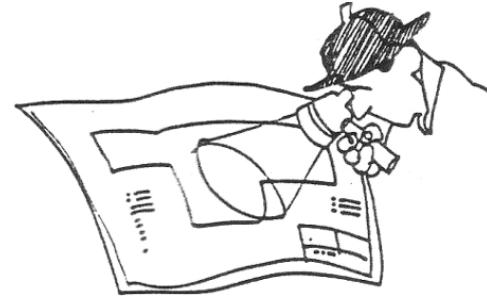


# Self-inspection 1(2) Template & instructions

No	Check	Method or equipment	Frequency	Result	Date Signature	Deviation/Remedy Approval/Non-A
1	The subsurface is cleaned					
2	Coverage of wood and sheet metal					
3	Reparation of subsurface irregularities					
4	Reinforcement					
5	Rendering texture and evenness of the color before the position is dismantled.					
6	Jointing Abutments to windows etc.					
7						
8						
9						
10						
11						

## Quality criteria for the project and the product

- Study Drawings, Specifications and Inspection planning
- Think through the alternative **methods of production** and handling of materials, tools etc. that can meet the requirements



### *Pay particular attention to*

- Follow the instructions in the specification and from the supplier
- When working in cold weather, appropriate measures must taken
- The subsurface and reinforcement are crucial to the quality and strength of the finished surface



### Reparation of subsurface irregularities

Damage, joints and crevices should be repaired the day before the rendering is performed with filling mortar.

### Pre-watering

Absorbent surfaces should be pre-watered. Use a hose with a fine spray nozzle.



### Rendering Team 1

Thereafter, the first render layer is sprayed onto the subsurface.

Here the rendering is applied to **Blähglass** which has large pores. This absorbed several times more render.

Direct after  
application the  
render is  
smoothed out.



## Reinforcement

A reinforcement sheet of glass fiber is placed as a wall paper on the wet render and pressed into the surface with a wide trowel so that the plaster penetrates through the glass fiber sheet.





## Rendering Team 2

On top of the reinforced layer the Team sprayed a thin layer, which was then



## Painting

In this project the surface was rolled twice.

**Finished rendered  
facade**



Execution 6(5)  
Work activity

*Building component: 53 – Façade Cladding – Reinforced rendering 14 (13)*