

### **Method Statement for Rust Removal**

Rust removal is the process of eliminating rust, a type of corrosion that occurs when iron or steel reacts with oxygen and moisture in the air. Rust can compromise the structural integrity of metal objects if left unchecked.

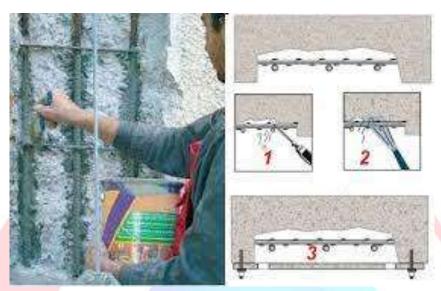


Fig. 1 Rust removal of RC member.

# Tools required to carry out this activity

- i. Wire Brush: A wire brush with stiff bristles is used to manually scrub and remove loose rust and debris from the surface of the steel
- ii. Grinder: Fitted with a wire brush or abrasive disc, an angle grinder can efficiently remove thicker layers of rust and scale
- iii. Brooms/Vacuum: To clean up the debris generated during rust removal.
- iv. Rags/Cloths: For applying chemicals and wiping surfaces.

# How to apply rust removal material

### **Surface Preparation:**

- Remove loosely held rust using a hand wire brush gently, but leave behind the layer of rust directly attached to the underlying steel.
- Ensure removal of oil or greasy residues if any with strong detergent and wash with clean water. Allow it to dry.

## **Application:**

Apply Reebaklens RR/Feovert/Rustoff 100 or equivalent material with suitable brush for complete wetting of rusted metal surface and allowed to react it (curing period).

#### Mode of measurement of this activity:

The amount of rust to be removed is measured to be equivalent to the area requiring concrete chipping.



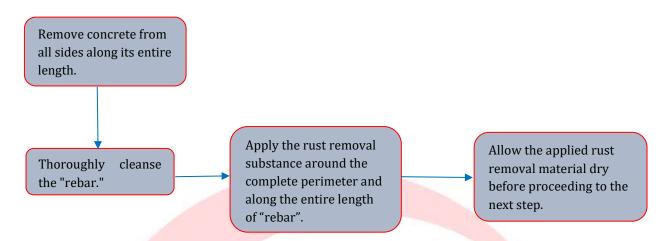


Fig. 2 Rust removal work -Flow chart.

### Storage:

Normally, at least 1 year in original sealed containers under confined conditions with 20°C to 30°C.

### **Quality Control (QC) Check Points:**

- 1) Firstly, confirm that the rebars have been thoroughly cleaned either manually or mechanically.
- 2) Carefully inspect the rust removal material applied to the reinforcement surface, ensuring thorough coverage along the entire circumference and over the full length of the rusted rebar with 2 coats.
- 3) Ensure that the rust removal material is applied uniformly and provides effective coverage.
- 4) Make sure that the next step of rebar repair is carried out after the appropr<mark>iate curing pe</mark>riod, allowing the applied rust removal material to dry.
- 5) Once the work is completed, ensure that all tools, equipment, and machinery are properly cleaned and restored to their original condition.

The following table provides the different manufacturers, along with their respective product details for rust removal.

**Table 1** Rust removal product.

Manufacturer	Product Name	Product Coverage Area
ProStructure		
Fosroc	Reebaklens RR	2.0 - 2.5 Sq. Mts/L
Krishna Con Chem	Feovert	8.0 - 10.0 Sq. Mts/L
Sika	Rustoff 100	3.0 - 5 Sq. Mts/L

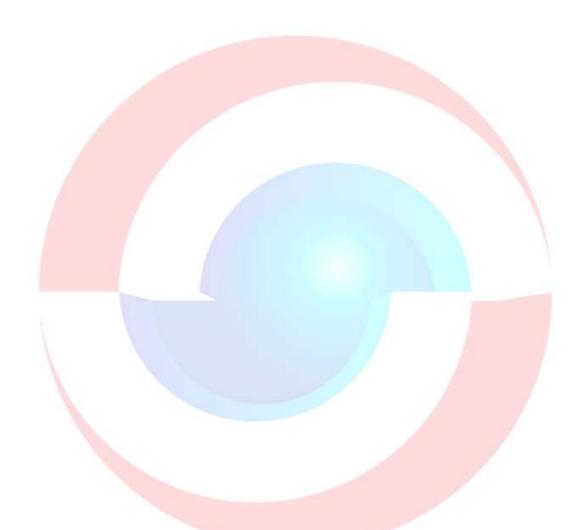
**Note:** For more detail please refer the please refer the manufacture product datasheet.

### **Limitation and Safety:**

- ➤ The surface should be dry before application.
- > Store the material in a cool place away from direct sunlight or any source of ignition and fire. Keep away from the reach of children in a well ventilated place.



- Personal Protective Equipment (PPE): Workers should wear appropriate PPE, such as gloves, goggles, and protective clothing, to minimize skin contact and prevent chemical splashes in the eyes.
- ➤ For safety requirements specific to the product, refer to the provided datasheet.





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