

SAINT-GOBAIN

# durarep FC

SINGLE-COMPONENT, POLYMER-MODIFIED CEMENTITIOUS FAIRING COAT



# **DESCRIPTION**

**durarep FC** is a one-component, polymer modified cementitious blend, which only requires the addition of a minimal amount of clean water. Its unique formulation provides a fair-faced finish to concrete and masonry whether used as a fairing or to close blowholes prior to applying protective decorative coatings such as the **duracote® WB** range of **a.b.e.®** products (or similar).

**durarep FC** is a Class R1-R2 non-structural repair mortar according to EN 1504-3.

## **USES**

**durarep FC** is used as a thin film coating to concrete and masonry surfaces which are not trafficked. It can be applied from feather edge to 3 mm in thickness for applications such as:

- Fairing of concrete or masonry surfaces to receive protective or decorative coatings
- Ideal for use as a scraper coat and filling minor indentations
- · Filling blowholes

## **FEATURES & BENEFITS**

durarep FC is highly compatible with and bonds extremely well to concrete, masonry, and other durarep mortars and can be over-coated with duracote coatings. durarep FC is applied from a featheredge to a maximum thickness of 3 mm. Deeper repairs need to be patched with one of the durarep range of products such as durarep FR prior to applying durarep FC.

- · Ready to use only requires clean water for mixing
- Easy to apply
- No primer or curing membrane necessary
- · Excellent bond to the concrete and masonry surfaces
- Constant quality/performance (pre-blended)
- Contains no chlorides
- Provides a consistently smooth finish, which enhances the appearance of protective coatings
- Can be used on vertical and overhead applications
- Will overcoat undulations and irregularities such as honeycombing

TYPICAL PHYSICAL PROPERTIES		
Approx. fresh wet density	1935 kg/m³	
Approx. working time @20 °C	20 minutes	
Setting time @20 °C (EN 196-3)	30 to 50 minutes	
Coefficient of thermal expansion	9 to 12 x 10-6/ °C	
Water addition		
Full bags only	7 - 8 litres per 25 kg	
Wet density (EN 12350-6)	2 265 kg/m³	

# SURFACE PREPARATION

The substrate must be sound, firm, clean and free of oil, grease, loose particles, cement laitance, old layers of paint or other contaminants. In severe cases chemical or steam degreasing might be required. In addition or as part of the cleaning process ensure that the substrate is roughened to provide sufficient key for bonding. This can be achieved by light scarification or grit-blasting.

Where the effectiveness of the surface preparation is in question pull-off tests should be performed. No additional preparation prior to the application of **durarep FC** onto **durarep** repair mortars is necessary, except for removing any curing compound. When using compressed air for cleaning, the air must be clean and oil free.



### **BONDING/PRIMING**

Priming is not required, but absorbent surfaces such as plaster or concrete must be thoroughly pre-wetted with clean water. Ensure that there is no free water on the surfac prior to application.

### **MIXING**

Forced action mixing is recommended for mixing large volumes of this type of product. One-bag batches or smaller volumes may be mixed with a variable-speed (300 - 500 r/min) industrial drill with an approved spiral paddle. Very small quantities may be mixed by hand but extreme care should be taken to ensure that the product is mixed thoroughly. Small batches mix ratio can be measured by volume.

The mortar is gauged with an amount of water to match the consistency required for application. Consult the properties table for the correct water addition.

Pour the clean water into the mixer and with the mixer running, gradually add the **durarep FC** to the water in the container. Mix for 3 to 5 minutes until the product is lump free, smooth and fully homogeneous.

Temperature can also influence consistency. Therefore, depending on the consistency required; the amount of water may be adjusted accordingly but should not exceed the maximum as indicated in the table.

## **COVERAGE**

7 litres of water added to 25 kg of **durarep FC** will cover approximately  $16 \text{ m}^2$  at 1 mm thick.

### **APPLICATION**

The mixed **durarep FC** should be applied by trowel in as few applications as possible. The product can be applied a maximum of 3 mm down to a feather edge. The coating must be allowed to set sufficiently before final profiling. Slight wetting can aid a smoother finish.

## **CURING**

**durarep FC** does not require any form of curing in moderate ambient conditions, but under strong drying conditions curing may be necessary. In this case, **durarep FC** should be cured immediately after finishing in accordance with good concrete practice.

Where curing is necessary, **duracure acrylic** shall be applied by low pressure spray to the **durarep FC** surface as finishing proceeds. Only surface coatings like **duraflex**®, **duracote FT** or **silocoat** can be applied over the cured surface. Large areas should be cured as trowelling progresses (0.5m² at a time) without waiting for completion of the entire area. In very fast drying conditions, supplementary curing with polythene sheeting taped down at the edges should be used.

In cold conditions, the finished application must be protected from freezing.

# **CLEANING OF EQUIPMENT**

Before the mortar hardens, clean tools with water. Hardened material can only be removed by mechanical means.

# PROTECTION/MAINTENANCE ON COMPLETION

Should rainfall be imminent, suitable protection must be provided until the product has cured.

For additional protection properties, **durarep FC** is fully compatible with the **duracote**<sup>®</sup> range of protective coatings (or similar). Depending on ambient conditions the **durarep** products can be over coated in 48 hours.

### TEMPERATURE AND RELATIVE HUMIDITY

Surface and ambient temperature must be at least +5  $^{\circ}$ C and rising, ideally between 20  $^{\circ}$ C and 35  $^{\circ}$ C.

At ambient temperatures above 35 °C, the material should be stored in the shade and cooled water used for mixing.

## **MODEL SPECIFICATION**

Polymer-modified cementitious fairing coat for filling blowholes and as a thin skin fairing coat on non-trafficable surfaces.

The fairing coat will be **durarep FC**, a single-component, polymer-modified, chloride-free compound applied in accordance with the recommendations of **a.b.e.**®

durarep FC is a Class R1-R2 non-structural repair mortar (EN 1504-3):

1 - Determination of compressive strength, UNE-EN 12190	9,3 N/mm²
2 - Chloride ion content, UNE-EN 1015-17	<0,01%
3 - Measurement of bond strength by pull-off, UNE-EN 1542	0,9 MPa
4 - Determination of retraction and expansion,	Shrinkage: 0,9 MPa
UNE-EN 12617-4 Controlled movements method	Expansion: 0,9 MPa
5 - Determination of resistance to carbonation, UNE-EN 13295	Dk > reference concrete MC(0,45)

### **PACKAGING**

**durarep FC** is supplied in 25 kg polyethylene lined paper bags (Product Code: 30797).

## **HANDLING AND STORAGE**

This product has a shelf life of 12 months if kept in a dry cool place in the original packaging. In more extreme conditions this period might be shortened.

## **HEALTH & SAFETY**

**durarep FC** is alkaline and must not be allowed contact with skin and eyes. Avoid inhalation of dust during mixing by wearing dust masks. The use of gloves, eye protection and dust masks is advised. Immediately wash with water in the event of contact with skin. Splashes into eyes should also be washed immediately with plenty of clean water and medicaladvice sought thereafter.

# **IMPORTANT NOTE**

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **a.b.e.**® endeavours to ensure that any advice, recommendation, specification or information is accurate and correct, the company cannot accept any liability for application – because **a.b.e.**® has no direct or continuous control over where and how **a.b.e.**® products are applied.

# **FURTHER INFORMATION**

Where other products are to be used in conjunction with this material, the relevant technical data sheets should be consulted to determine total requirements.

**a.b.e.**® has a wealth of technical and practical experience built up over the years in the company's pursuit of excellence in building and construction technology.

Please consult our website for our latest data sheets.

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