



SAINT-GOBAIN

## durarep P&S

Patching and smoothing compound

POLYMER MODIFIED,  
SHRINKAGE COMPENSATED  
CEMENTITIOUS MORTAR



### DESCRIPTION

**durarep P&S** is a ready-to-use, single component, polymer modified and shrinkage compensated cementitious patching compound.

### USES

**durarep P&S** has been formulated for application 5 to 40 mm thick and includes:

- Patching precast concrete elements
- Patching and smoothing over surface defects in concrete structures
- Smoothing of concrete surfaces to receive protective or decorative coatings
- Repairing voids and honeycombed areas
- Patching and smoothing concrete in both vertical and horizontal applications without formwork

### ADVANTAGES

- Dustless, >80% dust reduction during handling/mixing
- Fibre reinforced, polymer modified, shrinkage compensated and chloride free
- Ready to use (pre-blended), only requires clean water to be added
- Easy to apply
- Non toxic

### TYPICAL PROPERTIES

(@ 4.175 litres of water/25 kg bag)

**Compressive Strengths (MPa) @ 25 °C – (ASTM C109) (40x40x160mm prisms: EN 196-1; EN 12190; EN 1015-11)**

1 Day	18
7 Day	45
28 Day	63

**Flexural Strength (N/mm<sup>2</sup>) @ 25 °C – (ASTM C190) (EN 12390-5; EN 1015-11)**

28 Day	9
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**Tensile Strength (N/mm<sup>2</sup>) @ 25 °C – (ASTM D638)**

28 Day	3
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Setting time (EN 196-3)	≈3 hours
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Adhesion to concrete (EN 1542; EN1015-12)	>2 N/mm <sup>2</sup> @ 28 days
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Fresh wet density (EN 12350-6)	2.11 g/cm <sup>3</sup>
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### SURFACE PREPARATION

The substrate must be sound, firm and clean, free of oil, grease, loose material and cement laitance. Any other contaminants (e.g. old layers of paint) must be removed prior to patching. All edges to be repaired must be square cut to a minimum of 10 mm deep, perpendicular to the surface. If rebar is to be exposed, remove concrete to a minimum of 25 mm behind the rebar. Ensure that the substrate is roughened to provide sufficient mechanical key for bonding. Remove all unsound material. When using compressed air for cleaning, ensure that the air is clean and oil free.

Absorbent substrates must be thoroughly pre-wetted with clean water to reduce potential suction which could result in shrinkage and poor adhesion. This must be carried out at least 12 hours prior to the application

of **durarep P&S**. The substrate needs to be well dampened, with no free water on the surface.

Expose corroded rebar and remove all loose scale and corrosion deposits. Grit blasting is recommended for this purpose and particular care must be taken to ensure that the back of the rebar is cleaned as well. A clean bright finish is required.

## BONDING/PRIMING

Firmly brush **durabond GP** into the surface with a hard-bristle brush ensuring that the primer bonds well to the substrate. **durarep P&S** can be applied to the **durabond GP** as soon as it becomes tacky.

Use **epidermix® 344** wet-to-dry epoxy as a primer for structural applications where the bond strength must be equal to or greater than the parent material.

All exposed reinforcing bars must be primed by applying **durarep ZR primer** (see relevant data sheet).

## MIXING

Mixing should be carried out using a forced action mixer. Do not use free fall mixers. Add 4.2 litres, maximum, clean water to the mixer and while stirring slowly add one full bag (25 kg) of **durarep P&S** to the water. Mix for 3 to 5 minutes until the mortar is homogeneous and lump free. The mortar can be made up to a stiffer consistency (if required) by adding less water.

## APPLICATION

**durarep P&S** is applied to the primed surface by packing and tamping the product into place using a trowel and gloved hand.

Ensure that **durarep P&S** is properly compacted against and around exposed treated rebar. If multiple layers are required for thick sections, the intermediate layer should be scratch keyed and cured with **durabond GP**. The cured layer is then re-primed with **durabond GP** prior to the application of the next layer of **durarep P&S**.

## COVERAGE

Approximate coverage:

One bag of **durarep P&S** will yield approximately 0.014 m<sup>3</sup> (13.8 litres) of mortar when mixed with 4.2 litre water per 25 kg.

## CLEANING

**durarep P&S** should be removed from tools and mixing equipment immediately after use and before material has set with clean water. Cured material can be removed mechanically.

For **durabond GP** (dried), **epidermix® 344** (wet only) and **durarep ZR** primer, all tools may be cleaned with **abe® super brush cleaner**.

## PROTECTION ON COMPLETION

Like all cement based materials **durarep P&S** must be cured immediately, as soon as the surface will not be marred. This is carried out by applying (brush or spray) a suitable curing compound like **duracure SBC** or as recommended by **a.b.e.®**

Alternately apply **durabond GP** at the rate of 6 to 9 m<sup>2</sup>/litre.

In rapid drying conditions caused by high winds or direct sunlight additional precautions should be included like sealing with polythene sheeting having the edges taped down. This may include damp hessian behind the sheeting to prevent moisture loss.

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

In cold conditions, the repaired area must be protected from freezing.

## TEMPERATURE AND RELATIVE HUMIDITY

Surface, ambient and water temperatures should be greater than 5 °C and rising. The ideal temperature range for application is between 20 °C and 30 °C.

## PACKAGING

**durarep P&S** is supplied in:

25 kg polyethylene lined paper bags.

## HANDLING AND STORAGE

**durarep P&S** has a shelf life of 12 months if kept in a dry store in sealed bags. If stored in high temperature and in high humidity locations the shelf life may be reduced.

## HEALTH AND SAFETY

**durarep P&S** is alkaline and should 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 medical advice sought.

## 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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