# Shieldputty W20 S

**Polymer-modified, Cement-based Putty and Skim Coat**

TECHNICAL DATA SHEET

## Description

**Shieldputty W20 S** is an easy-to-use, polymer-modified, cement-based white putty and skim coat, ready to use as a pre-packed dry powder that only requires the addition of clean water on site. **Shieldputty W20 S** is suitable for internal and external applications.

## Uses

- Wet and dry conditions.
- Indoor and outdoor applications.
- Vertical and overhead applications.
- Aesthetic repair of walls, ceilings, and columns.
- Fine crack filler.
- To give a smooth surface to many substrates such as:
  - Repaired concrete
  - Concrete blocks and panels
  - Aerated lightweight blocks
  - Bricks
  - Precast concrete walls and ceilings

## Characteristics / Advantages

- No primer is needed.
- Resistant to water and weathering conditions.
- Resistant to freeze/thaw cycles.
- Excellent adhesion to many substrates.
- Creamy consistency with easy application.
- Provides very smooth surface finishes.
- Self-cured.
- Shrinkage-compensated.
- Low permeability
- Easy to be sanded.
- Applied surface can be painted after 72 h.

## Standard Compliance

BS EN 998-1: 2010 Class CS IV

## Packaging

**Shieldputty W20 S** is supplied in 20 kg packs.

## Shelf Life and Storage

**Shieldputty W20 S** has a shelf life of 12 months when stored in its original unopened packaging in cool and dry conditions, protected from direct sunlight, heat, and moisture. Shelf life may be reduced if the recommended storage conditions are not followed.

## Typical Properties

| | |
|---|---|
| Appearance/ Color | White powder |
| Mixed Density (@ 23°C) | 1.60 ± 0.10 g/ml |
| Open Time | ~ 60 minutes |
| Maximum Aggregate Size | 60 µm |
| Yield / 20 kg bag | 16.5 Liters |
| Application Thickness/ Coat | 1 – 3 mm |
| Overcoating Time | 3 hours |
| Setting Time (BS EN 196-3) @ 25°C | 7 – 8 hours |
| Compressive Strength (BS EN 1015-11) @28 days | ≥ 15.0 MPa |
| Flexural Strength (BS EN 1015-11) @28 days | ≥ 2.0 MPa |
| Bond Strength (BS EN 1015-12) @28 days | ≥ 0.50 MPa |
| Service Temperature | Up to 70˚C |

## Application Instructions

### 1. Substrate Temperature

+5°C to +35°C

### 2. Surface Preparation

The substrate must be free from dust, loose materials, surface contamination, and any materials that may reduce bond or prevent adhesion of the putty. Surface laitance should be removed by light scabbling or grit blasting to provide a roughened key for the putty.

Thoroughly dampen the surface of the concrete with clean water to provide a saturated surface dry condition (SSD). Poor-quality concrete may require soaking for a significant length of time. Any excess water shall be removed prior to application.

## 3. Mixing

**Shieldputty W20 S** requires (6.5 – 7.0) liters of potable water per 20 kg bag. For optimum results, mixing should be performed using a forced-action high-shear mixing paddle, powered by a heavy-duty electric mixing drill. Add the pre-measured amount of water to a clean mixing bucket. Add the **Shieldputty W20** powder slowly to the water whilst mixing and continue mixing for 2 – 3 minutes until a smooth, homogenous, lump-free consistency is achieved.

## 4. Application

Apply the mixed material to the prepared surface using a steel float, trowel, or spatula to a thickness of 1 – 3 mm. Further coats, to increase thickness, may be applied after the waiting time has passed (3 hours minimum), total thickness can reach up to 6 mm.

As the material sets, it can be troweled to a smooth surface using a steel float or, alternatively, finished with a sponge to give a textured finish.

## 5. Cleaning

All mixing equipment and application tools should be cleaned immediately with clean water. Hardened material should be mechanically removed.

## 6. Curing

Curing is not normally necessary, but freshly applied material should be protected from rain and strong drying winds.

## Consumption and Coverage (For 20 kg packs)

Yield: 16.5 Liters

Consumption: 1.15 – 1.20 kg/m2/mm thickness.

Coverage: 16.5 – 17.5 m2/20 kg bag/mm thickness.

## Safety Instructions

**Shieldputty W20 S** contains hydraulic cement and may cause irritation to the skin or eyes. Refer to the most recent Material Safety Data Sheet for information and advice on the safe handling, storage, and disposal of the product.

## Limitations

- Do not apply the product if the ambient temperature is less than 5°C.
- Surface may stain if excess water is used to finish the material.
- Not recommended to apply directly to painted surfaces.
- Hot weather practices should be adopted during application and curing if the temperature is above 35°C. In hot conditions, store the material in a cool environment prior to mixing and use chilled mixing water.

## Technical Support

Refer to technical information, method statement, or contact technical support team for any inquiry.

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