

# Product Data Sheet

## Thistle® HardWall

Thistle HardWall is a gypsum undercoat plaster ideal for two coat plaster systems. You can apply it by hand or by spray machine for extra speed and convenience.

### Where to use

It's ideal for most medium to high suction backgrounds, including masonry such as bricks and aircrete blocks. With a final coat of Thistle MultiFinish, ThistlePro PureFinish, ThistlePro DuraFinish or ThistlePro Magnetic plaster it provides a smooth, inert, high quality surface to internal walls. It's suitable for applying by hand or using a plaster projection machine.

### Certifications

Environmental Product Declaration (EPD) available [Click here](#).



## Product information

### Composition

This is a retarded hemihydrate, pre-mixed gypsum plaster.

### Colour

Pink/grey.

### Nominal weight (kg)

25.

## Performance

Here we only provide performance information related to the product. Please see the White Book online for system-dependent performance.

### Standards

EN 13279-1:2008, Type B4/20/2 and C3/20.

Declarations of Performance (DoP) available [Click here](#).

Reaction to fire	A1
Thermal resistance (m <sup>2</sup> K/W)	0.037

### Effect of moisture and condensation

Don't expose the plaster to moisture repeatedly or for long periods of time, as this can cause it to lose strength and adhesion.

### Effect of temperature

Thistle plasters aren't suitable for plastering onto frozen backgrounds. However, you can use them in frosty conditions as long as you prevent the plaster from freezing after it's been applied. Dry, bagged plaster isn't affected by low temperatures.

Once Thistle plasters are fully set and dry, they shouldn't be exposed to temperatures above 49°C. When applying in hot or dry conditions, make sure the plaster doesn't lose water too quickly, as it needs some of the mixing water to set and reach full strength.

### Application

#### Background preparation: solid backgrounds

Follow this guidance when working with solid backgrounds:

- Before applying the plaster, use the Thistle Essential Selector Guide to check that the background is suitable.
- Make sure the surface is dry, clean and protected from the weather.
- Before plastering concrete backgrounds, remove any mould, oil or other agents from the surface.
- You don't need to wet no-fines concrete before plastering.
- Allow enough time for normal ballast concrete to mature before applying the plaster.
- Don't apply plaster to 'green' backgrounds, or where any free water is visible.
- Wet mature concrete to displace the air before plastering.
- On dense blocks, do not use on smooth low-suction blocks.

#### Mixing up

**Hand operation:** Add Thistle plasters to clean water and use clean mixing equipment, as contamination from previous mixes affects the setting time and strength. Fresh contamination has more of an effect than old, so you should wash equipment just after mixing rather than just before.

**Machine operation:** Thistle HardWall is designed for mixing and applying using a worm pump plastering machine. To learn how to do this with your chosen machine, please refer to the machine manufacturer's guidance. In general, the plaster's consistency should be slightly softer than that used for hand application. You don't need to throw away any plaster you mix to check the consistency. Instead, you can apply this by hand when carrying out small jobs like prefilling joints, fixing beads, and finishing reveals.

Thistle plasters are suitable for mixing by hand or using a mechanical whisk with a slow speed and high torque. While mechanical mixing speeds up the process, there's no need to continue mixing after you've dispersed the lumps and reached the right consistency. Over-mixing wastes time and energy, and can affect setting times, reduce workability, and make it difficult to achieve a flat finish.

#### Applying to different substrates

**Hand application:** Apply the plaster with a firm pressure, and build it out to the required thickness without exceeding 8mm. Rule the plaster to an even surface and lightly scratch it to form a key for 2mm of Thistle finish plaster. Fix Thistle Plaster Angle Beads or Thistle Plaster Stop Beads to angles by embedding them in dabs of plaster. Follow good site practice as outlined in BS EN 13914 Code of Practice for Internal Plastering.

**Machine application:** Before you begin spraying, cover any windows, doorways and openings, holding the cover in place with masking tape. Alternatively, another person can hold a piece of plywood or board in place during the spray application. Before you add any Thistle plasters to your chosen machine, consult the manufacturer's instructions on water, pipes and pump sizes. The spray machine should be set up in a well ventilated area, with operatives using the correct personal protective equipment.

Apply the plaster using a horizontal ribbon pattern. Once you've reached the required thickness, the wall can be worked and ruled off as with normal hand application. The total thickness should normally exceed 25mm, subject to background suitability.

### Application (continued)

Wall application thickness (mm)	11
Ceiling application thickness (mm)	8
Dense aggregate concrete blocks and no-fines concrete: maximum recommended thickness (mm)	11 (not on smooth, low suction blocks)
Extended metal lath: maximum recommended thickness (mm)	11 (when bridging columns and lintels)
Aerated concrete blocks: maximum recommended thickness (mm)	11 (Thistle GypPrime may be required to control high suction)
Common brick walls and concrete bricks with raked joints: maximum recommended thickness (mm)	11
Coverage per bag (m <sup>2</sup> )	3 at 11mm thick
Working time: maximum	80 minutes
Set time: minimum	120 minutes
Water requirements per bag (litres)	15
Dry set weight (kg/m <sup>2</sup> )	8.8 at 11mm thick

### Painting and wallpapering

Add a Thistle finish coat plaster before decorating.  
Don't decorate directly onto Thistle undercoat.

### Tiling

Add a Thistle finish coat plaster before tiling. Don't tile  
directly onto Thistle undercoat.

### Snagging and minor repairs

Thistle undercoat plaster finished with 2mm of Thistle  
finishing plaster provides a system that's suitable for  
moderate to high impact and wear. If the plaster is  
correctly applied, you shouldn't need to maintain it  
afterwards.

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## Sitework

### Storage

Bags should be stored inside on a flat and stable surface, away from any sources of moisture, heat or direct sunlight. If storing on a concrete floor, use dry timber platforms. The bags should not be stored near any edges, openings, walkways or traffic areas, where they could fall or cause obstruction. Damaged or opened bags should be used first or discarded appropriately.

### Handling

British Gypsum fully accepts its responsibilities as a supplier of building materials and systems as required by Section 6 of the Health and Safety at Work etc. Act 1974.

To reduce manual handling risk, employers and workers should follow HSE's Manual Handling Operations Regulations 1992 (MHOR) and the HSE's guidance on manual handling at work (INDG143). Employers should carry out a risk assessment and implement control measures to avoid or minimise the need for manual handling. Workers should follow safe lifting and moving techniques and report any hazards.

### Safety Data Sheet

Safety Data Sheet (SDS) available [Click here](#).

### Shelf life

Stored correctly, this product has a shelf life of four months, and bags are marked with a use by date so you can use them in strict rotation.

### Packaging overview

This plaster is packaged in a paper bag and is supplied palletised.

Quantity per pallet	45 bags
Pallet: nominal height (mm)	1280
Pallet: nominal length (mm)	1230
Pallet: nominal depth (mm)	1030
Pallet: nominal weight (tonnes)	1.2

## Environmental

### Disposal

Segregate the plaster from non-gypsum waste for recycling where possible, and dispose of it according to local authority requirements.

### BES 6001 classification

Excellent.



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