

Plaster skimming

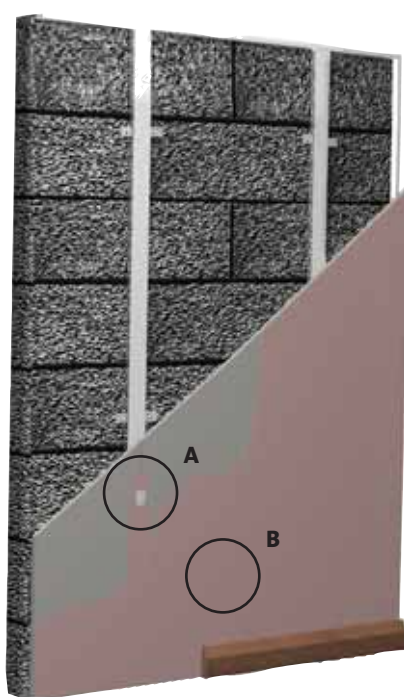


This section includes updated information, added since it was first published in July 2009. Please see the WHITE BOOK update document for details.
Last updated 05/07/2010



Plaster skimming

Plaster skimming to plasterboards is a popular method of providing a smooth, seamless surface ready to receive decorative treatment. Skim plastering gives many of the advantages of a traditional solid plaster finish combined with quick turnaround on site. Surface preparation simply involves joint reinforcement and, if tapered edge board is used, flushing-out the tapers. The plaster is applied to the wall or ceiling surface to a nominal 2mm thickness.



Gyproc
Joint Tape



Thistle finish
plaster

Key facts

- Traditional plaster finish
- Provides uniform surface
- Resilient and scuff-resistant for general purposes, and excellent resistance to accidental damage provided by Thistle Durafinish
- Applied to 2mm thickness
- Finished in one visit to site
- ConstructionSkills grant approved training available

Applications

Due to the design flexibility of plaster skimming systems, they can be tailored to meet the requirements of a wide range of applications.

Sector

- ✓ Office / commercial
- ✓ Education
- ✓ Custodial
- ✓ High-rise multi-occupancy
- ✓ Retail
- ✓ Healthcare
- ✓ Housing
- ✓ Auditoria
- ✓ Sport and leisure
- ✓ Industrial
- ✓ Apartment buildings

System components

Plaster products



Thistle Board Finish

For low-medium suction backgrounds, e.g. plasterboards, Thistle Dri-Coat.



Thistle Multi-Finish

For use over both undercoats and plasterboard.



Thistle Durafinish

To provide improved resistance to accidental damage.

Plaster beads and accessories



Thistle Thin Coat Angle Bead

Length
2400, 3000mm



Thistle Thin Coat Mini Mesh Bead

Length
2400, 3000mm



Thistle Thin Coat Plaster Stop Bead

3mm thickness.

Length
2400, 3000mm



Thistle ProTape FT50 and FT100

Self-adhesive glass fibre mesh tapes for joint reinforcement.



Gyproc Joint Tape

Paper tape with centre crease for joint reinforcement, providing superior resistance to cracking.



ThistleBond-it

For pre-treatment of moisture resistant board surfaces.

Application and finishing overview



Mixing

Thistle plasters should be mixed by adding to clean water using clean mixing equipment. Contamination from previous mixes can adversely affect the setting time and strength. Fresh contamination has more effect than old, so equipment should be washed immediately after mixing rather than just before.

Thistle finishing plasters are suitable for mixing by hand or mechanical whisk of a slow speed, high torque type. While mechanical mixing speeds the process up, there is no need to continue mixing after dispersing lumps and achieving the right consistency. Over-mixing wastes time and energy, can affect setting times, lead to deterioration in workability and create difficulty in achieving a flat finish.

Plastering to board backgrounds

Board finishing should be completed as soon as possible after the boards have been fixed. Thistle plaster is applied with firm pressure, built out to the required thickness in two applications and trowelled to a smooth matt finish. Good site practice should be followed, as outlined in *BS EN 13914 - 2: Design Considerations and Essential Principles for Internal Plastering*.

Thistle Thin Coat Angle Bead or Thistle Thin Coat Mini Mesh Bead is fixed to the plasterboard angle by embedding in 'dabs' of finish plaster. To hold the bead in correct alignment as the plaster sets, it is recommended that additional mechanical fixings are used (non-rusting nails, screws or staples) as required. Wipe away any excess before the plaster sets, as scraping set plaster may damage the zinc coating. If the bead is fixed to the board 'dry' the adhesion may be reduced because it is difficult to squeeze plaster between the bead and the plasterboard.

Before applying Thistle finish plasters to Gyproc plasterboards, Glasroc F MULTIBOARD, Glasroc F FIRECASE or Rigidur H, flat joints should be reinforced using Thistle ProTape FT50 or FT100, or any gaps exceeding 3mm pre-filled and reinforced using Gyproc Joint Tape. Thistle ProTape FT50 and FT100 fibre tapes are self-adhesive and fixed to the board surface before the first application of plaster. Gyproc Joint Tape is embedded in the first coat over each joint, leaving sufficient plaster under the tape to ensure good adhesion, and immediately covered with a further application.

Plaster is applied to the whole surface after the joint treatment has partially stiffened, but not set.

For joints that may be subject to more movement (including those around door or window apertures, where board edges are not fully supported, or on ceilings below floors that are susceptible to high deflection), Gyproc Joint Tape embedded in the finish provides better resistance to cracking than glass fibre tapes.

Decoration

Gypsum based plasterwork must always be thoroughly dry before decorating, although a coat of permeable paint can be applied in the interim. Plaster surfaces can be decorated with most proprietary paint finishes and will accept the majority of wall covering adhesives. Follow manufacturers' recommendations in respect of applied decorative treatments.

Specialist training

The British Gypsum Drywall Academy offers comprehensive ConstructionSkills grant approved off-site training at dedicated training centres throughout the UK. For more information, visit www.british-gypsum.com

Performance

Fire protection

Thistle finish plasters achieve a Euroclass A1 reaction to fire rating, except Thistle Durafinish, which is A2, s1 - d0.

Sound insulation

The application of Thistle finish plasters can help the plasterboard element to achieve optimum acoustic performance, since any small gaps or other air paths will be sealed during plastering.

Table 1 – Physical properties

Thistle plaster type	Bag weight kg	Approx. coverage ¹ m ²		Approx. setting time hours
		per 1000kg	per bag	
Board Finish	25	410 - 430	10	1.5
Multi-Finish	25	410 - 430	10	1.5
Durafinish	25	410 - 430	10	1.5

¹ Coverage based on 2mm thickness.

For full installation details, refer to the British Gypsum **SITE BOOK**, available to download from www.british-gypsum.com

Durability

Thistle finish plasters attain high strength during the drying process and do not suffer from inherent shrinkage cracks. For the highest quality ceiling finish, Thistle Bonding Coat can be applied to the board surface as the base coat at up to 8mm thickness followed by a 2mm application of Thistle Multi-Finish.

▶ Refer to section 11 - Plaster systems.

Physical properties

Coverage, setting times and bag weights are given in Table 1.

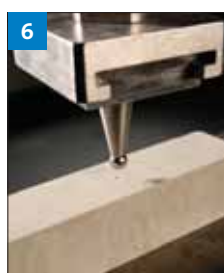
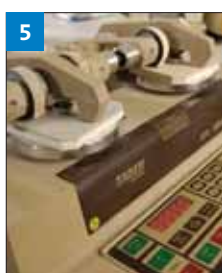
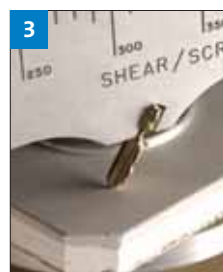
Damage resistance

Thistle Durafinish provides additional resistance to accidental damage, glancing impacts and repeated abrasion, which can cause scratching, gouging or chipping of other wall finishes. Using Thistle Durafinish reduces the extent and frequency of repair work, and minimises associated costs and disruption. It also has excellent adhesion to most backgrounds, therefore damage to small areas does not spread or cause debonding, which makes repair easier.



Table 2 – Performance : comparison between Thistle Multi-Finish and Thistle Durafinish

Property tested	Test method	Real examples	Image	Damage measured	Performance		Improvement %
					Thistle Durafinish	Thistle Multi-Finish	
Glancing impact resistance	150 kg trolley, 30° angle, 1 m/s speed, simulating impact energy of 75J	Corners of furniture, trolleys and wheeled equipment, general light impacts		Depth of indentation	0.68mm	2.60mm	74%
Scratch resistance, diamond stylus	Taber Shear / scratch tester, standard	Light contact with sharp objects		Weight loss	0.004g	0.07g	94%
Scratch resistance	Taber Shear / scratch tester, modified to use key, 180g load	Light contact with sharp objects		Visual assessment	No damage	Visible scratch	N/A
	Taber Shear / scratch tester, modified to use key, 3.4kg load	Medium-heavy contact with sharp objects		Weight loss	0.003g	0.0195g	85%
Scratch resistance	Elcometer	Medium contact with sharp objects		Weight loss	0.08g	0.2g	60%
Abrasion resistance	Taber Abraser	Rubbing of chair backs		Weight loss	0.27g	0.3g	10%
Surface hardness average	BS EN 13279-1 - ball indentation	Heavy objects leaning on wall		N/A	15N/mm ²	15N/mm ²	0%
Compressive strength	BS EN 13279-1 - prism crush	None		N/A	12N/mm ²	10N/mm ²	20%
Flexural strength	BS EN 13279-1 - prism 3-point bend	None		N/A	5.0N/mm ²	3.5N/mm ²	43%



Design

Planning - key factors

Thistle Board Finish is designed to provide a 2mm skim finish to plasterboards, Glasroc F MULTIBOARD and Glasroc F FIRECASE. Thistle Multi-Finish offers an alternative that is also capable of finishing undercoat plasters. Where increased resistance to accidental damage is required, or where finishing Rigidur H, Thistle Durafinish is recommended. For the highest quality ceiling finish, Thistle Bonding Coat (up to 8mm) plus Thistle Multi-Finish (2mm) can be specified.

Care must be taken when applying finish coats in low temperatures and an allowance made for slightly longer setting and drying times. Plasters should not be applied where backgrounds are frozen or at risk of freezing before the plaster work is thoroughly dry.

Thistle Durafinish has similar working characteristics, setting time and suction resistance to Thistle Multi-Finish. The full thickness of 2mm must be applied for the optimum performance to be achieved. Ambient and background temperatures must be maintained above 5°C until fully dry.

Backgrounds

Plasterboards (excluding moisture resistant grade boards)

Skimming should be specified only on the face of boards, i.e. the side without a paper overlap. This will be the ivory face in the case of Gyproc WallBoard, Gyproc WallBoard ТЕН, Gyproc DuraLine and Gyproc HandiBoard, the coloured face of Gyproc FireLine, Gyproc SoundBloc and Gyproc Ergo900. Joints must be reinforced with Thistle ProTape FT50 or FT100, or Gyproc Joint Tape. A range of corner and stop beads is available for reinforcement of external angles and edges.

Moisture resistant grade boards

Skim plastering is not normally specified to Gyproc Moisture Resistant and MR grade boards. These types of board are intended for use in environments of higher than normal humidity for which no gypsum plaster is designed to be suitable. Where moisture resistant board options are used in shell and core construction to provide temporary resistance to high moisture conditions, they can be skimmed at a later date after the building envelope has been made weather-tight. Plaster should be applied only to the face of moisture resistant boards. Pre-treatment with ThistleBond-it is required when using Thistle Board Finish or Thistle Multi-Finish. Pre-treatment is not necessary if using Thistle Durafinish.

Glasroc F MULTIBOARD, Glasroc F FIRECASE and Rigidur H

Skim finishing should be to the smooth face of the board. Rigidur H may need to be treated with Thistle GypPrime prior to skimming, to control the suction. Application techniques and joint reinforcement are similar to those used on plasterboards - see [Application and finishing overview - Plastering to board backgrounds](#).

Tiling

Tiles up to a weight of 20kg/m² can be applied directly to the Thistle finish coats, except where the system includes a bonding agent. As the total weight of tiles and plaster applied over a bonding agent is limited to 20kg/m², consideration should be given to tiling directly to the background. If plastering to provide a background for tiles, avoid polishing the surface. Polished plaster surfaces should be roughened and a suitable primer used.

Tiles should not be applied directly to Thistle undercoats, with the exception of Thistle Dri-Coat.