

ThistlePro DuraFinish

Product Data Sheet

Product description

Overview

ThistlePro DuraFinish has excellent resistance to glancing impacts and repeated abrasion typical of the accidental damage which causes scratching, gouging or chipping of other wall finishes. This can reduce the scope of, and extend the intervals between, maintenance, helping to reduce costs and maximise the occupiers' use of the building. It also has excellent adhesion to most backgrounds, so damage to small areas does not spread or cause debonding, making repair easier.

ThistlePro DuraFinish can also enhance the surface damage resistance of any British Gypsum partition or wall lining system. It is particularly suited to the applications for GypWall **EXTREME** and GypWall **ROBUST**.

Applications

ThistlePro DuraFinish is designed for the finishing of a wide range of backgrounds, from low-suction (e.g. Gyproc plasterboards, Glasroc F **MULTIBOARD**, Glasroc F **FIRECASE**, Rigidur **H**, Thistle DriCoat, sufficiently flat concrete) through to the medium-to-high suction of gypsum or cement-based undercoat plasters.

Most backgrounds which normally require a bonding agent to provide adhesion can be directly plastered with ThistlePro DuraFinish (e.g. **MR** plasterboards, cast in-situ concrete, previously plastered surfaces), provided they are clean, sound and reasonably dry.

High suction backgrounds, such as undercoat plasters, require pre-treating with Thistle GypPrime prior to the application of ThistlePro DuraFinish.

Standards

ThistlePro DuraFinish complies with *EN 13279-1 type B7*, "gypsum plaster for plasterwork with enhanced surface hardness".

All British Gypsum plasters are manufactured under a quality system independently audited and certified as conforming with *ISO 9001: 2015*.

Performance

Comparison of ThistlePro DuraFinish vs Thistle MultiFinish

Property tested	Test method	Real examples	Damage measured	Performance		Improvement %
				ThistlePro DuraFinish	Thistle MultiFinish	
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 assesment	No damage	Visible scratch	-
	Taber Shear / scratch tester, modified to use key, 3.4kg load	Medum-heavy contact with sharp objects	Weight loss	0.003g	0.195g	85%
Scratch resistance	Elcometer	Medium contact with sharp objects	Weight loss	0.08g	0.2g	60%
Abrasion resistance	Taber Abraser	Rubbing off chair backs	Weight loss	0.27g	0.3g	10%
Surface hardness average	BS EN 13279-1 - ball indentation	Heavy objects leaning on wall	-	15N/mm ²	15N/mm ²	0%
Compressive strength	BS EN 13279-1 - prism crush	None	-	12N/mm ²	10N/mm ²	20%
Flexural strength	BS EN 13279-1 - prism 3-point bend	None	-	5.0N/mm ²	3.5N/mm ²	43%

Fire protection

ThistlePro DuraFinish achieves a Euroclass A2, s1-d0 reaction to fire rating.

Fire resistance

Gypsum plasters provide good fire protection due to the unique behaviour of gypsum in fire. When gypsum-protected building elements are exposed to fire, dehydration by heat (calcination) occurs at the exposed surface and proceeds gradually through the gypsum layer. Calcined gypsum on the exposed face adheres tenaciously to uncalcined material, retarding further calcination which slows as the thickness of calcined material increases. While this continues, materials adjacent to the unexposed side will not exceed 100°C - below the temperature at which most materials will ignite and far below the critical temperatures for structural components. Once the gypsum layer is fully calcined, the residue acts as an insulating layer while it remains intact.

Thermal resistance

It should be assumed that ThistlePro DuraFinish makes a negligible contribution to thermal resistance of building elements.

Effect of temperature

Unlike other gypsum plasters, ambient and background temperature must be maintained above 5°C until fully dry to obtain the full damage resistance. Once fully set and dry,

ThistlePro DuraFinish is suitable for situations where the temperature does not exceed 49°C. Dry, bagged plaster is not affected by low temperatures. During application in hot and / or dry conditions, care should be taken to ensure that rapid loss of water is avoided. A proportion of the mixing water is required in order to set and achieve full strength. If the water is dried off too rapidly, the strength of the plaster will be impaired.

Effect of condensation and other moisture

While ThistlePro DuraFinish has greater water resistance than most gypsum plasters, it should be protected from continuous exposure to moisture. Prolonged or repeated exposure to moisture may cause a loss of strength and / or adhesion.

Identification

Thistle DuraFinish is light grey in colour when dry, enabling it to be easily distinguished from Thistle BoardFinish and Thistle MultiFinish, which are pink.

Product information

Sold in quantities of a single bag.

Coverage per bag m ²	Setting time hours	Water requirement litres	Dry set weight kg/m ²	Pallet quantity kg
10 @ 2mm thickness	1.5	12 per bag	3.4	1050 (42 bags)

Limitations

ThistlePro DuraFinish may not be suitable where resistance to determined and deliberate attack is required. Resistance to heavy perpendicular impact is largely determined by the background to which ThistlePro DuraFinish is applied.

For advice on the suitability of ThistlePro DuraFinish for other situations, please contact the British Gypsum Technical Advice Centre.

Application and installation

General

ThistlePro DuraFinish has slightly different working characteristics and suction resistance to Thistle MultiFinish. An installation guide is available at www.british-gypsum.com/instructions

Background preparation

Plasterboards - including moisture resistant boards:

Skimming should be specified only on the face of boards, i.e. the side without a paper overlap (the ivory face of Gyproc WallBoard, Gyproc WallBoard **TEN**, Gyproc DuraLine, Gyproc HandiBoard, and the coloured face of Gyproc FireLine, Gyproc Habito and Gyproc SoundBloc). 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.

Glasroc F MULTIBOARD, Glasroc F FIRECASE and Rigidur H:

Skim finishing using ThistlePro DuraFinish should be to the smooth face of the board. Application techniques and joint reinforcement are similar to those used on plasterboard.

Undercoat plasters: Gypsum-based undercoats should be left reasonably flat and with a scratch key. They are usually finished when set but not dry - if they are dry there will be higher suction. Thistle GypPrime is recommended to be applied to the undercoat plaster prior to the application of ThistlePro DuraFinish.

Cement based undercoats shrink on drying and can crack days or even weeks after application. If ThistlePro DuraFinish is applied before the shrinkage is

complete, there is an increased risk of delamination or cracking of the finish, particularly if the undercoat was not adequately keyed. The key provided to cement-based backgrounds therefore needs to be much better, and the drying time allowance much longer, than for gypsum-based undercoats. Retarded ready-mixed cement-based mortars may have delayed shrinkage, and may contain additives which interfere with the strength or setting of ThistlePro DuraFinish.

Storage

Bags should be stored dry, as absorption of water shortens the setting time, causes set lumps to form in the bags and may reduce the strength of the set plasterwork. If storing on a concrete floor, dry timber platforms should be provided. ThistlePro DuraFinish stored correctly has a shelf life of 4 months and bags are printed with the 'use by' date in order to permit use in strict rotation.

Mixing

Mix by adding to clean water in clean mixing equipment. Contamination from previous mixes adversely affects the setting time and the strength. Fresh contamination has more effect than old - so equipment should be washed just after mixing, rather than just before. Suitable for mixing by hand or mechanical whisk of a slow speed, high torque type. A range of suitable mixers and paddles is available in the Gyproc Tools range. 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.

Application and installation continued

Application

Plastering to board backgrounds: Plaster is applied with firm pressure, built out to 2mm thickness in two applications and trowelled to a smooth matt finish as the plaster progressively sets. Good site practice should be followed, as outlined in *BS EN 13914 Code of Practice 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 ThistlePro DuraFinish 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. Before this plaster sets, any surplus should be wiped from the corner, as scraping it away later 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 ThistlePro DuraFinish to Gyproc plasterboards or Glasroc F **MULTIBOARD**, flat joints are reinforced using Thistle ProTape FT50 or FT100, or any gaps exceeding 3mm are pre-filled and joints reinforced using Gyproc Joint Tape.

Thistle ProTape FT50 and FT100 fibre tapes are self-adhesive and are fixed to the board surface before application of plaster. Gyproc Joint Tape is embedded in the first coat over each joint, pressed firmly into the plaster and immediately covered with a further application. Sufficient plaster is left under the tape to ensure good adhesion and to ensure that the joint treatment is free from air bubbles. Plaster is applied to the whole surface after the joint treatment has partially set, but not dried.

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

Plastering to undercoat plasters: Apply with firm pressure, build out to 2mm thickness in two applications and trowel to a smooth matt finish as the plaster progressively hardens through setting or by loss of water into the background. Thistle GypPrime should be applied to reduce the background suction.

NB The full thickness of 2mm must be applied for the optimum performance to be achieved.

"Gyproc", "Thistle", "Gypframe" and "Glasroc" are all registered trademarks of Saint-Gobain Construction Products UK Limited. "Isover" is a registered trademark of Saint-Gobain Isover and "Artex" is a registered trademark of Saint-Gobain Construction Products UK Limited.

Saint-Gobain Construction Products UK Limited is a limited company registered in England under company number 734396, having its registered office at Saint-Gobain House, Binley Business Park, Coventry, CV3 2TT, UK. Saint-Gobain Construction Products UK Limited trades as British Gypsum for part of its business activities.

British Gypsum reserves the right to revise product specification without notice. The information herein should not be read in isolation as it is meant only as guidance for the user, who should always ensure that they are fully conversant with the products and systems being used and their subsequent installation prior to the commencement of work. For a comprehensive and up-to-date library of information visit the British Gypsum website at: british-gypsum.com. For information about products supplied by Artex Limited or Saint-Gobain Isover please see their respective websites.

"British Gypsum" is a registered trademark of Saint-Gobain Construction Products UK Limited.

T: 0115 945 6123
F: 0115 945 1616
E: bgtechnical.enquiries@bpb.com

Training enquiries: 0844 561 8810

British Gypsum August 2018 BG-PDS-118-06

british-gypsum.com

