

# Thistle PureFinish

## Product Data Sheet

### Introduction

Thistle PureFinish is designed for the finishing of a wide range of backgrounds, from low-suction (e.g. plasterboard, Glasroc F MULTIBOARD and Glasroc F FIRECASE, Thistle DriCoat, sufficiently flat concrete and other flat surfaces treated with bonding agents) through to medium-high suction of gypsum or cement-based undercoat plasters.

### Product description

Thistle PureFinish is a gypsum finish plaster for use on a wide range of backgrounds. It provides a smooth, inert, high quality surface to internal walls and ceilings, and a durable base for the application of decorative finishes. Thistle PureFinish is a retarded hemihydrate, pre-mixed gypsum plaster, requiring only the addition of clean water to prepare it for use. The **ACTIVair** technology within Thistle PureFinish absorbs and converts formaldehyde into non-harmful inert compounds.

### Product performance

#### 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 Thistle PureFinish makes a negligible contribution to thermal resistance of building elements.

#### Effect of temperature

Thistle PureFinish is not suitable for plastering onto frozen backgrounds but it may be used under frosty conditions provided that, after plastering, the surfaces are adequately protected from freezing. Once fully set and dry, Thistle PureFinish is only suitable for situations where the temperature does not exceed 49°C. Dry, bagged plaster is not affected by low temperatures. During the application of gypsum plasters in hot and / or dry conditions, care should be taken to ensure that rapid loss of water is avoided. Gypsum plasters require a proportion of the mixing water 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

Thistle PureFinish should be protected from continuous exposure to moisture. Prolonged or repeated exposure to moisture may cause a loss of strength and / or adhesion.

#### Coverage

Coverage per bag m <sup>2</sup>	Setting time hours	Water requirement litres	Dry set weight kg/m <sup>2</sup>	Pallet quantity kg
10 @ 2mm thickness	1.5	11.5 per bag	3.4	1400 (56 bags)

#### ACTIVair technology

Though we don't notice them, impurities such as VOCs are often present in the air we breathe - emitted from furniture, carpets and building materials. Long-term exposure to these can potentially cause health problems and reduce general well-being.

Clean air, on the other hand, can speed up patient recovery in hospitals, reduce absence at work, and increase pupils' concentration at school.

**ACTIVair** is our latest technology designed specifically to convert formaldehyde, a common VOC, into non-harmful inert compounds, removing 70% of the formaldehyde concentration in the indoor air. This clever technology continues to work over 50 years, and whilst alternative solutions absorb formaldehyde, they don't decompose like **ACTIVair** risking re-emission at a later date.

# Application and installation

## Background preparation

**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 <sup>TEN</sup>, Gyproc DuraLine and Gyproc HandiBoard, or the coloured face of Gyproc FireLine 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.

**Moisture resistant grade boards:** Skim plastering should not normally be specified to Gyproc Moisture Resistant and MR grade boards. These types of board are intended for use in environments of higher than normal humidity. 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 and pre-treatment with Thistle Bond-It is required.

**Glasroc F MULTIBOARD and Glasroc F FIRECASE:** Skim finishing using Thistle PureFinish should be to the smooth face of the board. Application techniques and joint reinforcement are similar to those used on plasterboards.

**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 which may need to be reduced by damping down before finishing. Cement-based undercoats shrink on drying and can crack, up to days or even weeks after application. If Thistle PureFinish 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 Thistle PureFinish.

## 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. Thistle PureFinish 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

Thistle plasters should be mixed 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. 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. A range of suitable mixers and paddles is available in the Gyproc Tools range.

**Plastering to board backgrounds:** Plaster is applied with firm pressure, built out to the required 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 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. Before this plaster sets, any surplus should be wiped from the corner, because 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 Thistle PureFinish 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 reinforced using Gyproc Joint Tape. Thistle ProTape FT50 and FT100 fibre tapes are self-adhesive and are 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. Gyproc Joint Tape is pressed firmly into the plaster and immediately covered with a further application.

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 fibre tapes.

**Plastering to undercoat plasters:** Apply with firm pressure, built out to the required 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. If background suction is excessive, dampen it down before finishing.

## 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. The manufacturers' recommendations in respect of applied decorative treatments should always be followed.

## Tiling

Tiles up to 20kg/m<sup>2</sup> can be applied directly to Thistle PureFinish, 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/m<sup>2</sup>, 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.

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## Product standards

Thistle PureFinish complies with *EN 13279-1 type B1/20/2*, and is manufactured under a quality system independently audited and certified as conforming with *ISO 9001: 2008*.

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## Maintenance

Thistle PureFinish on plasterboard provides a plastering system suitable for moderate impact / wear areas. When used over undercoat plasters the resistance to minor casual damage is good, while the resistance to damage from greater impacts

depends also on the undercoat used. If the plaster is correctly applied, it should not require any form of maintenance.  
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