C08. S02. P02 – P08
Plaster skimming

Including C08. S01. P02
Finishes introduction
Finishes

Essential to all our high performance systems is our full range of finishing products
Finishes

British Gypsum’s range of finishes provide everything needed to complete the wall lining, partition, floor and ceiling systems, regardless of the size and complexity of the project specification.

Plaster skimming to plasterboard is a popular method of providing a smooth, seamless surface ready to receive decorative treatment. Alternatively our jointing materials produce durable joint reinforcement and a smooth, continuous, crack-resistant surface ready for priming and final decoration.

The range of boards available for tiling offers flexibility of design and peace of mind when installed in both wall linings and lightweight partition systems.

To relieve flat runs of lining, joints and angles, and to enhance walls and ceilings, a variety of decorative effects are available which can be installed simply and quickly.

- Plaster skimming - C08. S02. P02
- Jointing - C08. S03. P02
- Tiling - C08. S04. P02
- Decorative effects - C08. S05. P02

You may also be interested in...

If you are looking for finishes with high sustainability credentials then Thistle plasters have attained BES 6001 ‘Excellent’. We have also developed EPDs for a number of our plasters’ range.

► Refer to C08. S01. P51 – Sustainability.
Plaster skimming

Plaster skimming to plasterboard is a popular method of providing a smooth, seamless surface ready to receive decorative treatment.

All our systems are covered by SpecSure® when using genuine British Gypsum and Saint-Gobain Isover products.
Plaster skimming

Skim plastering gives many of the advantages of a traditional solid plaster finish such as robustness, acoustic enhancement and a quick turnaround on site.

Key benefits
— Surfaces are finished in one visit to site
— A smooth and uniform finish can be achieved in one visit to site using our Thistle plaster range
— Enhanced acoustic performance is achieved by using Thistle MultiFinish on a range of GypWall systems
— Excellent scuff resistance can be achieved through the use of ThistlePro DuraFinish

Additional information
Whatever your requirement, the flexibility of plaster skimming can be used in conjunction with a wide range of system solutions
Plaster skimming performance

Reaction to fire
All Thistle finish plasters achieve a Euroclass A1 reaction to fire rating, except ThistlePro DuraFinish, which is A2, s1 - d0. This makes them an appropriate finish for almost all situations.

Refer to C02. S01. P06 – Fire.

Table 1 – Physical properties

<table>
<thead>
<tr>
<th>Plaster category</th>
<th>Plaster type</th>
<th>Bag weight kg</th>
<th>Approx. coverage $m^2$ per 1000kg</th>
<th>Approx. coverage $m^2$ per bag</th>
<th>Approximate setting time hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essential</td>
<td>Thistle MultiFinish</td>
<td>25</td>
<td>410 - 430</td>
<td>10</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Thistle BoardFinish</td>
<td>25</td>
<td>410 - 430</td>
<td>10</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>Thistle SprayFinish</td>
<td>25</td>
<td>420 - 440</td>
<td>11</td>
<td>1.5</td>
</tr>
<tr>
<td>Performance</td>
<td>ThistlePro DuraFinish</td>
<td>25</td>
<td>410 - 430</td>
<td>10</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>ThistlePro PureFinish</td>
<td>25</td>
<td>410 - 430</td>
<td>10</td>
<td>1.5</td>
</tr>
<tr>
<td>Specialist</td>
<td>ThistlePro Magnetic</td>
<td>25</td>
<td>200$^1$</td>
<td>5$^1$</td>
<td>1.5</td>
</tr>
</tbody>
</table>

$^1$Based on 3mm thickness.

Sound insulation
The application of Thistle finish plasters can help the plasterboard element to achieve optimum acoustic performance. They do this in two ways:

- A change to the measured acoustic performance, by applying 2mm Thistle MultiFinish to both sides of certain GypWall partitions, has a positive effect on the sound insulation rating. This benefit results in a performance uplift of up to $R_w 2dB$.

- Any small gaps or other air paths will be sealed during plastering, limiting flanking routes for sound transfer.

This is effective on partitions that are limited by their high frequency performance (coincidence region). This application will also add mass to the partition, which has a positive effect on the mid-frequency of the spectrum.

Refer to C02. S01. P18 – Building acoustics.

Quality of finish
Homeowners and building occupiers are quick to notice a poor quality finish. Thistle finishing plasters, are capable of providing a superior, smooth surface whether you’re skimming on plasterboard or using a two-coat plaster system. And it’s ready to take whatever decorative treatment you choose.

Refer to C07. S02. P02 – Plaster systems.

Damage resistance
A skim finish not only provides a better finish, it is also more robust, providing additional resistance to damage in high traffic areas or rooms subject to greater wear and tear. ThistlePro DuraFinish provides additional resistance to accidental damage, glancing impacts and repeated abrasion, which can cause scratching, gouging or chipping of other wall finishes. Using ThistlePro 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.

Stability
Thistle finish plasters attain high strength during the drying process and do not suffer from inherent shrinkage cracks.
Plaster skimming performance (continued)

Table 2 – Performance: comparison between Thistle MultiFinish and ThistlePro DuraFinish

<table>
<thead>
<tr>
<th>Image</th>
<th>Property tested</th>
<th>Test method</th>
<th>Real examples</th>
<th>Damage measured</th>
<th>Performance Improvement %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Glancing impact resistance</td>
<td>150 kg trolley, 30° angle, 1 m/s speed, simulating impact energy of 75J</td>
<td>Corners of furniture, trolleys and wheeled equipment, general light impacts</td>
<td>Depth of identification</td>
<td>ThistlePro DuraFinish: 0.68mm, Thistle MultiFinish: 2.60mm, Improvement: 74%</td>
</tr>
<tr>
<td>2</td>
<td>Scratch resistance, diamond stylus</td>
<td>Taber Shear / scratch tester, standard</td>
<td>Light contact with sharp objects</td>
<td>Weight loss</td>
<td>ThistlePro DuraFinish: 0.004g, Thistle MultiFinish: 0.07g, Improvement: 94%</td>
</tr>
<tr>
<td>3</td>
<td>Scratch resistance</td>
<td>Taber Shear / scratch tester, modified to use key, 180g load</td>
<td>Light contact with sharp objects</td>
<td>Visual assessment</td>
<td>No damage to Visible scratch, Improvement: 85%</td>
</tr>
<tr>
<td>4</td>
<td>Scratch resistance</td>
<td>Elcometer</td>
<td>Medium contact with sharp objects</td>
<td>Weight loss</td>
<td>ThistlePro DuraFinish: 0.08g, Thistle MultiFinish: 0.2g, Improvement: 60%</td>
</tr>
<tr>
<td>5</td>
<td>Abrasion resistance</td>
<td>Taber Abraser</td>
<td>Rubbing off chair backs</td>
<td>Weight loss</td>
<td>ThistlePro DuraFinish: 0.27g, Thistle MultiFinish: 0.3g, Improvement: 10%</td>
</tr>
<tr>
<td>6</td>
<td>Surface hardness average</td>
<td>BS EN 13279-1 - ball indentation</td>
<td>Heavy objects leaning on wall</td>
<td>-</td>
<td>ThistlePro DuraFinish: 15N/mm², Thistle MultiFinish: 15N/mm², Improvement: 0%</td>
</tr>
<tr>
<td>7</td>
<td>Compressive strength</td>
<td>BS EN 13279-1 - prism crush</td>
<td>None</td>
<td>-</td>
<td>ThistlePro DuraFinish: 1.2N/mm², Thistle MultiFinish: 10N/mm², Improvement: 20%</td>
</tr>
<tr>
<td>8</td>
<td>Flexural strength</td>
<td>BS EN 13279-1 - prism 3-point bend</td>
<td>None</td>
<td>-</td>
<td>ThistlePro DuraFinish: 5.0N/mm², Thistle MultiFinish: 3.5N/mm², Improvement: 43%</td>
</tr>
</tbody>
</table>
Plaster skimming design

Specialist finishes

Indoor air quality – ThistlePro PureFinish

We spend 80% of our time indoors, in schools, offices and hospitals and our homes. We take it for granted that the air we breathe is clean and pollutant-free, as fresh as the air from the great outdoors. Yet impurities found in both our working and living spaces can cause health problems and a reduction in our general wellbeing.

Pollutants called VOCs - volatile organic compounds - are naturally emitted into our homes, offices and schools for people, pets, cleaning products as well as furniture, carpets, paints and varnishes.

People often complain about health problems after extended periods of time spent indoors. Many of these symptoms can be attributed to VOCs:

- Headaches
- Nausea
- Allergies and increased allergic reactions
- Lack of concentration
- Eye irritation
- Fatigue
- Breathing problems

The World Health Organisation concerns about formaldehyde (which is a common VOC) in relation to human health are well published (WHO guidelines for indoor air quality: selected pollutants; 2010).

You can’t see VOCs, or smell them. Therefore there is no way of knowing what concentrations you are being exposed to on a daily basis. As building regulations lead to more airtight construction, the importance of VOC management becomes more critical.

ThistlePro PureFinish is a versatile final coat plaster that provides good results on all suction backgrounds where there is a requirement for improved indoor air quality. ThistlePro PureFinish contains ACTIVair technology and is an excellent choice of plaster where both undercoats and board backgrounds are involved in the same job.

ACTIVair technology is designed specifically to decompose formaldehyde emissions into non-harmful inert compounds, thus eliminating the risk of re-emission. Tests show that ACTIVair decomposes 70% of the formaldehyde in a controlled test environment.

Decoration – ThistlePro PureFinish

Gypsum-based plasterwork must always be thoroughly dry before decorating, although a coat of permeable paint can be applied in the interim. ThistlePro PureFinish plaster surfaces should be decorated with a permeable paint with a low VOC content. The surface will accept the majority of wall covering adhesives. The manufacturers’ recommendations in respect of applied decorative treatments should always be followed.

Interactive walls – ThistlePro Magnetic

ThistlePro Magnetic is a plaster designed to attract magnets - turning your wall into an interactive area.

With a plaster that attracts magnets you can turn any wall in any room into an inspiring interactive gallery or notice board that you can change as often as you like, no fuss, no mess.

ThistlePro Magnetic can be applied to new or existing walls. Applied with a minimum 3mm thickness it can be decorated with standard emulsion paint or combined with specialist decorative finishes, including blackboard and whiteboard paint or wallpaper.
Planning - key factors
Thistle BoardFinish is designed to provide a 2mm skim finish to plasterboards, Glasroc F MULTIBOARD and Glasroc F FIRECASE. Thistle MultiFinish offers an alternative that is also capable of finishing undercoat plasters.

Where increased resistance to accidental damage is required, or where finishing Rigidur h, ThistlePro DuraFinish is recommended.

Care must be taken when applying finish coats in low temperatures and an allowance made for slightly longer setting and drying times. Plasters must only be applied where backgrounds are not frozen or will remain at 2°C or above until dry.

ThistlePro DuraFinish has a similar setting time to Thistle MultiFinish, although working characteristics vary slightly. 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 to apply ThistlePro DuraFinish.

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 TEN, Gyproc DuraLine and Gyproc HandiBoard, the coloured face of Gyproc FireLine and Gyproc SoundBloc. Joints must be reinforced. For greatest resistance to cracking this should be carried out using Gyproc Joint Tape. Alternatively with Thistle ProTape FT50 or FT100 can be used. A range of corner and stop beads are available for reinforcement of external angles and edges.

Glasroc F MULTIBOARD, Glasroc F FIRECASE and Rigidur h
Skim finishing should be applied to the smooth face of the board. Rigidur h needs to be treated with diluted Thistle GypPrime prior to skimming to control the suction. Application techniques and joint reinforcement are similar to those used on plasterboards.

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. Likewise, moisture resistant board can be skimmed where they are being used for convenience and are away from wet areas. Tiling is not recommended on plaster skimmed plasterboard. Application techniques and joint reinforcement are the same as those used on plasterboards. Plaster should be applied only to the face of moisture resistant boards. Pre-treatment with Thistle Bond-it is required when using Thistle BoardFinish or Thistle MultiFinish. Pre-treatment is not necessary if using ThistlePro DuraFinish.

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 DriCoat.
## Plaster Skimming Components

### Plasterboard Accessories (Refer to section C10. S05. P02 for details)

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gyproc Joint Tape</td>
<td>A paper tape designed for reinforcement of flat joints or internal angles.</td>
</tr>
</tbody>
</table>

### Finishing Products (Refer to section C10. S06. P02 for details)

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thistle Thin Coat Plaster Angle Bead - Skimming</td>
<td>Galvanized steel ‘thin coat’ bead with perforated 30mm wide wings for reinforcement of external angles in 2mm plaster finishes.</td>
</tr>
<tr>
<td>Thistle Thin Coat Plaster Stop Bead - Skimming</td>
<td>Galvanized steel bead with perforated wings for finishing and reinforcing edges of thin coats of plaster.</td>
</tr>
<tr>
<td>Thistle ProTape FT50</td>
<td>Self-adhesive 48mm wide glass fibre mesh tape.</td>
</tr>
<tr>
<td>Thistle ProTape FT100</td>
<td>Self-adhesive 100mm wide glass fibre mesh tape.</td>
</tr>
<tr>
<td>Thistle Bond-it</td>
<td>Bonding agent for smooth and/or low suction backgrounds providing an adequate key.</td>
</tr>
<tr>
<td>Thistle GypPrime</td>
<td>Primer to reduce suction on very dry backgrounds.</td>
</tr>
</tbody>
</table>

### Essential Finish Coat (Refer to section C10. S06. P02 for details)

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thistle MultiFinish</td>
<td>To provide a plaster skim finish on most common backgrounds including undercoat plasters and plasterboard. Can provide enhanced acoustic performance.</td>
</tr>
<tr>
<td>Thistle SprayFinish</td>
<td>To provide a plaster skim finish by spray or hand application, ideal for medium to large projects.</td>
</tr>
<tr>
<td>Thistle BoardFinish</td>
<td>To provide a plaster skim finish to Gyproc plasterboards.</td>
</tr>
</tbody>
</table>

### Performance Finish Coat (Refer to section C10. S06. P02 for details)

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thistle ProDuraFinish</td>
<td>To provide a plaster skim finish and provide up to 60% tougher resistance to accidental damage.</td>
</tr>
<tr>
<td>ThistlePro PureFinish</td>
<td>To provide a plaster skim finish with ACTVair technology. Used to finish most common backgrounds including undercoat plasters and plasterboard. For more information refer to C02. S01. P49.</td>
</tr>
</tbody>
</table>

### Specialist Finish Coat (Refer to section C10. S06. P02 for details)

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ThistlePro Magnetic</td>
<td>To provide a plaster skim finish that provides an attraction to magnets used to finish a wide range of backgrounds, including undercoat plasters and plasterboard.</td>
</tr>
</tbody>
</table>

For further details on system components refer to C10. S01. P02 – Products, plaster and plaster accessories.
Plaster skimming installation overview

This is intended to be a basic description of how skimming is applied. For detailed installation guidance refer to the British Gypsum Site Book.

Thistle plasters should be mixed by adding to clean water and using clean mixing equipment. Contamination from previous mixes must be avoided as this can adversely affect the setting time and strength. Thistle Thin Coat Angle Bead or Thistle Thin Coat Mini Mesh Bead is fixed to the plasterboard angle by embedding in the finish plaster.

Where there is an increased risk of cracking, or where gaps exceed 3mm, the gaps are reinforced with Gyproc Joint Tape bedded in Thistle plaster. In other situations plasterboard joints can be reinforced with Thistle ProTape FT50 or FT100 glass fibre mesh tape.

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 EN13914 - 2: Design Considerations and Essential Principles for Internal Plastering.

Additional information

For full installation details, refer to the British Gypsum Site Book, available to download from british-gypsum.com.