



PRODUCT DATA SHEET

ONECOAT

Overview

Gyproc OneCoat Plaster is a lightweight plaster that's easier to spread and less physically demanding than other systems leading to improved performance on site. Gyproc OneCoat also provides a high quality, durable finish, suitable for decoration, with a single application, whilst improving the quality of air internally by removing formaldehyde from the air.

Applications

BACKGROUND/LINING	COAT THICKNESS MM	APPROX. COVERAGE M ² /1000KG***
Common brick walls and concrete bricks (with raked joints).	10*/13**	120 @ 10mm 93 @ 13mm
Engineering brick (raked joint)		
Medium density block		
Dense block		
Cast in situ/pre-cast concrete (Pre-treatment with ThistleBond-it required)		

*For non-performance walls

**For block on flat party walls to meet Building Regulations

***When applying by plaster projection machine, an allowance should be made for a reduction in coverage of approximately 10%

Note: Consideration should be taken at design stage to details such as door jams to ensure they are in line with the depth of plaster to be applied.

Standards

Gyproc OneCoat plaster complies with *EN 13279-1* and is manufactured under a quality system independently audited and certified as conforming to *ISO 9001: 2008*.

Performance

Fire protection

Gypsum plasters are non-combustible when tested in accordance with relevant EN and BS standards, achieving Euroclass A1 and satisfying the requirements for Class 0 surfaces in the National Building Regulations. 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.

Air-tightness

When applied to masonry walls Gyproc OneCoat can provide a significant contribution to the overall air-tightness performance strategy of a building. Test results undertaken in an INAB accredited laboratory demonstrated that the application of 10mm Gyproc OneCoat over 100mm Irish manufactured concrete blocks, laid on edge, offered an air permeability performance of $0.028\text{m}^3/\text{h}\cdot\text{m}^2$ (50pa).

Effect of Condensation and other moisture

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

Acoustic Performance

The application of Gyproc OneCoat improves the sound insulation performance of masonry walls. Gyproc OneCoat adds additional mass to the wall and seals the porous nature of the masonry, restricting the passage of sound energy.

Building Regulations (ROI) Technical Guidance Document Part E: Sound 2014 currently requires that for new dwelling units and material changes of use to existing buildings creating dwelling units, all separating walls offer a minimum sound insulation performance of at least $53 D_{nT\omega}$ dB. Where Northern Ireland Building Regulations apply, Technical Booklet G: Resistance to the passage of Sound 2012 currently requires an airborne sound insulation performance for new dwellings of $45 D_{nT\omega} + C_{tr}$ dB.

The application of 13mm Gyproc OneCoat applied to both sides of a typical 7.5N 215mm concrete blockwork party wall has demonstrated site tested airborne sound insulation performances as high as $58 D_{nT\omega}$ dB ($53 D_{nT\omega} + C_{tr}$ dB). Flanking design, building materials and workmanship may vary from site to site and should be taken into consideration. Further information on the test evidence referenced can be provided upon request.

Effect of temperature

It is recommended that the background temperature should be at least 5°C and that the plaster should not be subjected to temperatures below 5°C before it has set. Dry bagged plaster is not affected by low temperature. The plaster is not suitable for use in situations where the temperature exceeds 43°C .

Resistance to efflorescence

Gyproc OneCoat offers high resistance to efflorescence migration from background to surface, unlike sand and cement.

Resistance to cracking

Unlike sand and cement, which can take several days/weeks before reaching full maturity, the setting process of Gyproc OneCoat is complete within 4-5 hours. No shrinkage cracking will occur with the use of OneCoat when it is fully set.

Product information

COVERAGE PER BAG APPROX. M ²	SETTING TIME HOURS	WATER REQUIREMENT LITERS	PALLET QUANTITY BAGS
2.3 @ 13mm thickness	4-5	18L per bag	50
3 @ 10mm thickness	4-5	18L per bag	50

Installation

Background Preparation

Surfaces should be dry, clean and free from loose dust and dirt. They should be protected from the weather, and suitable for the chosen specification. Some masonry backgrounds of exceptionally high suction may require pre-treatment with GypPrime to control their suction.

It is advisable to brush down the surface to remove any dust or loose pieces and then dampen the surface. Additionally, if plastering is to be undertaken on a concrete surface, ensure all mould oil, grease or other agents present are removed from that surface. It must then be pre-treated with Gyproc Thistle Bond-it before plastering with Gyproc OneCoat. Fine concrete does not require 'wetting' prior to plastering. Normal ballast concrete should be given sufficient time to mature before applying the plaster.

Plaster should not be applied onto a 'green' background or if there is free water visible.

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. Gyproc OneCoat plaster, stored correctly has a shelf life of 9 months and bags are printed with the 'manufactured by' date in order to permit use in strict rotation.

Mixing

Gyproc OneCoat is pre-mixed and only clean water needs to be added to prepare it for use. Hand mixing should be carried out in a suitable large mixing tub with a minimum 1800 watt mechanical drill for optimum results. Excessive mechanical mixing should be avoided. Tools and water used in mixing must be clean. Contamination from previous mixes can shorten the setting time and in turn reduce the strength of the plaster when set.

Application

Gyproc OneCoat should be applied to solid backgrounds with firm pressure and built out to the required thickness. For machine application, Gyproc OneCoat plaster works well with most electrical spraying machines. The plaster should be applied in an even manner and can be built out to a minimum depth of 10mm, up to 15mm in single application.

If a deeper depth is needed then apply to a thickness of 12.5mm, allow to stiffen sufficiently and then apply a second coat of 12.5mm to a maximum coat of 25mm and finish accordingly.

The plaster should be ruled vertically and horizontally, to a reasonable plane using a serrated edge, whilst filling in any hollows. Shortly after flatten with a straight edge (the edge held at a more acute angle to the wall than one might hold an edge when using it on sand and cement). When ready, proceed with a second edging using a straight edge, before levelling to the required flatness.

When the plaster has stiffened sufficiently, a flexible blade or spatula should be used to achieve a flat surface. The plaster should be allowed to stiffen and pull in before being sponged down at the required time. When the plaster is sufficiently firm, trowelling in should commence. Do not over polish.

Setting

Gyproc OneCoat Plaster has a setting profile of 4 – 5 hours. Once set no further material shrinkage will occur.

Drying

Gyproc OneCoat Plaster dries from the back to the front, so the surface may appear to take longer to dry when compared to other plasters. The ambient temperature and environmental conditions as well as moisture content in the air during drying may have some effect on the drying time. Gyproc OneCoat Plaster should always be protected from continuous and repeated exposure to moisture during drying, to allow the product to dry properly; After application the product being exposed to excess moisture may result in loss of strength and / or adhesion. Adequate ventilation is also required and necessary to ensure proper drying.

Decoration

Gypsum-based plasterwork must always be thoroughly dry before decorating. 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.

'Painting will tend to reveal any inherent surface irregularities. These minor imperfections will be highlighted when gloss or semi-gloss paints are used, particularly where the plasterwork is subjected to intense or shallow angle lighting', as detailed in

EN 13914 (Annex A).

Maintenance

Gyproc OneCoat Plaster provides a plastering system suitable for moderate impact / wear areas.

If the plaster is correctly applied, it should not require any form of maintenance.

Application of Ceramic Tiling over Gyproc OneCoat

Ceramic tiling weighing not more than 32kg/m² (including thickness of adhesive), with an applied thickness not greater than 12.5mm (including thickness of adhesive), may be successfully adhered to the surface of Gyproc OneCoat using proprietary Cementitious mortar, Acrylic or PVA based tiling adhesives providing the Gyproc OneCoat background

- has been closed and thoroughly scratched to provide an adequate key for adhesion
- has fully dried out
- is free from dirt, debris, grease, and other loose particles
- has been primed with a suitable proprietary tiling primer (by others)

It is imperative that the surface of Gyproc OneCoat is coated with a suitable tiling primer and left for the manufacturers prescribed time period before application of the proprietary tiling adhesives and tiling.

Gyproc OneCoat is not classified as waterproof or moisture resistant. As such it would typically not be suitable for environments subjected to higher levels of humidity above approximately 65% RH.

However, in our opinion, the application of ceramic tiling and suitable grouting materials in full accordance with the method described above help to provide a suitable barrier which, permits the use of Gyproc OneCoat as a substrate to ceramic tiling in areas which are subjected to periods of intermittently high humidity.

Gyproc OneCoat is not recommended for use below tiling in areas which are subjected to continuously high levels of humidity or increased risk of exposure to moisture. The use of a primer (supplied and substantiated by others), which can offer the required level of moisture resistance, may however be considered an acceptable barrier to Gyproc OneCoat.

The recommendations given are based on experience and laboratory / site testing. In practice, performances will also be dependent upon factors such as workmanship and site conditions. Guidance is therefore given without warranty. The application of Gyproc One Coat should be undertaken in accordance with all relevant application codes of practice.

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For a comprehensive and up-to-date library of information visit the Gyproc website at: www.gyproc.ie



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