

# Clay Finish Plaster and Self-Coloured Plaster

## Technical Information Sheet

### Description

Clay finish and self-coloured plasters are a blend of clay and fine aggregate supplied as a dry powder. They have an indefinite shelf life if stored dry and require only mixing with clean water to be ready for use. They harden by drying - no chemical reaction takes place – and so remain workable for a long time and can be re-worked by the addition of water at any time.

Quality of the products is monitored by tests carried out by the manufacturer :

- Tests of physical properties to ensure suitability of clay and aggregates.
- Tests to ensure uniformity and performance of the batched product.

Clay finish and self-coloured plasters are available in the following quantities :

Product	Bag Weight kg	No. of bags/pallet	Recommended coat thickness mm	Yield m <sup>3</sup> /bag	Coverage m <sup>2</sup> /bag
Topcoat	30	42	2 - 4	0.0215	7 (approx)

### Design

Clay finish and self-coloured plasters are suitable for use on internal surfaces of walls and ceilings. They attach by mechanical bonding to suitable stable and dry substrates, including masonry, clayboard, lime base-coat plasters and plaster-boards.

They are a practical alternative to using gypsum or lime plasters and are compatible with 'breathing' construction in historic and new buildings.

The self-coloured plasters provide a high quality, non-dusting, self-coloured finished surface without the need for further decoration.

Physical properties of plaster :

- Density 1500 kg/m<sup>3</sup>
- Thermal conductivity (k) 0.66 W/mK
- Vapour diffusion resistance factor (ref air)  $\mu$  8

Resistance to Damage :

- Precautions common to good construction practice should be taken to avoid damage to the new plaster before completely dry.
- In domestic applications the dried surface has good resistance to abrasion however careful detailing is required in high-use applications such as schools and hospitals. Corners should not be reinforced with metal beading as this will lead to differential wear of the softer plaster. They should be slightly rounded (2mm radius or greater) to reduce the risk of damage.

#### Resistance to Fire :

- Clay plaster is non-combustible.

#### Resistance to Moisture :

- The plaster will deteriorate if applied onto damp backgrounds or if used unprotected in damp environments. Careful attention to detail is required in kitchens, bathrooms, shower areas, etc.
- Contact the supplier for advice on particular applications.

#### Thermal/Moisture Movements :

- Clay plaster is dimensionally stable when used in dry internal conditions and as part of a 'breathing' wall construction.

#### **Directions for Use:**

##### Mixing

- Add the dry plaster gradually to clean water in a large bucket using a plasterer's wheel or drill attachment to ensure even mixing.
- Allow the mixed self-coloured plasters to stand for 30minutes before use.
- The consistency should resemble conventional lime or gypsum plasters ie. not so dry and sticky that it cannot be spread nor so wet that it cannot be applied.
- The basic colours of the self-coloured plasters can be combined to create new colours. Test panels should be made and thorough mixing is necessary to ensure uniformity of colour.

##### Application

- Clay finish and self-coloured plasters can be applied using tools and techniques common to conventional lime and gypsum plasters. They can also be applied in 1.5 – 2mm coats with plaster spraying machines.
- Surfaces to be plastered should be stable, dust-free and lightly dampened before applying plaster.
- Smooth surfaces should be keyed using a spatter coat of plaster slurry or a painted primer mixed with sand.
- The surface of paper-faced plasterboards should be sealed as recommended by the manufacturer to prevent the board from absorbing water during the drying process and becoming unstable.
- Joints between boards should be filled and scrimmed using jute scrim in a wetted up plaster mix.
- When applied over clay undercoat or one-coat plaster, the previous layers should be fully dry and shrinkage complete before applying finish coats. Undercoats should be roughened to ensure a good mechanical key for subsequent layers.
- Clay finish and self-coloured plasters can be applied as soon as the undercoat is firm and shrinkage is complete.
- When using self-coloured plasters, complete walls or panels should be finished in one operation to avoid the effects of possible variations in colour.

### Finishing

- Clay finish and self-coloured plasters can be trowelled to a smooth dense surface or rubbed down using a nylon sponge to create a fine textured surface.
- With drying, the surface becomes more firm and can be worked more. The timing of the surface finishing will vary for different applications (refer to the factors below).
- Finished plaster surfaces can be painted – a dilute coat must first be applied when the plaster is fully dry. Thin coats will avoid concealing surface texture. Contact the paint supplier for advice on particular applications and maintaining vapour permeability.

### Drying

- Drying times vary considerably with the ambient conditions, applied thickness and the suction of the background. In ideal conditions, a 2–3 mm thick finish coat will be dry after 24 hours.
- To encourage controlled drying, ensure plastered areas are well ventilated. Excess heat or forced ventilation may cause cracking. If cracking occurs, the affected area can be wetted and re-trowelled.

### Site Notes

- Clay finish and self-coloured plasters are supplied in paper sacks that can be broken by rough handling.
- They should be stored off the ground and protected from damp.

### Health and Safety

- There is a small risk of inhalation of dust when handling clay plaster in the dry state.
- Clay plaster is non-irritant in contact with exposed skin.

### Environmental Impact

For a full environmental assessment of this product refer to NBT Environmental Assessment Sheets

Further information on this product can be obtained by contacting NBT direct.

If you have any questions or queries please do not hesitate to contact Womersley's Limited on Tel 01924 400651 or call in at our workshop.