General

Gypsum plaster is the product of mixing gypsum (calcium sulphate hemi-hydrate) with water. The gypsum takes up water and sets forming the di-hydrate. The set plaster is relatively weak compared to cement renders and always requires a penetrating surface conditioner, such as Resene Sureseal (see Data Sheet D42). Gypsum plaster is slowly soluble in water and should not be used in wet areas.

Pure gypsum plaster is chemically inert but impurities, such as sodium sulphate, may cause efflorescence and additives, such as lime putty, may cause the surface to be alkaline. If gypsum is deprived of water before setting, such as thin films over porous surfaces or thin films on a hot day, setting will not take place and a powdery layer will be left on the surface.

Fibrous plaster is cast from moulds normally using a tallow-based release agent; residues of this may cause painting problems. Where tallow residues are suspected, usually on glossy areas, clean the surface with Resene Emulsifiable Solvent Cleaner (see Data Sheet D804).

Some materials used as set retarders may solubilise iron that is present, which may result in a stained appearance after painting.

Surface preparation

D85.1 Dry surfaces
Ensure plaster is thoroughly dry before painting.

D85.2 Remove efflorescence
Remove any efflorescence with dry soft brushes or cloths.

D85.3 Solvent clean
Solvent clean any glossy areas with Resene Emulsifiable Solvent Cleaner (see Data Sheet D804).

D85.4 Fill cracks and holes
Fill all cracks and holes with a suitable filler according to the manufacturer’s instructions. Allow to dry before sanding smooth and undercoating.

D85.5 Sand surfaces
Thoroughly sand down to a smooth surface and remove minor surface imperfections. Wipe with a damp cloth to remove dust.

D85.6 Seal surfaces
Allow to thoroughly dry out, then seal with a full coat of Resene Sureseal (see Data Sheet D42) or Resene Waterborne Smooth Surface Sealer (see Data Sheet D47a).

Special attention must be paid to thin layers of uncured plaster. Either remove and replaster if necessary or reinforce with additional treatments of Resene Sureseal (see Data Sheet D42).