



## Ingredients and glossary

We believe it is important to be open about product ingredients. That is why we operate a policy of full disclosure and are happy to list our ingredients on all product labels. Our careful ingredient selection relies on natural products rather than heavily processed chemicals. Ingredients are selected and processed in line with our philosophy of minimal environmental impact and creating products that are healthier and more pleasant to use.

Full listings of product ingredients can be found on the relevant product pages and also on the product data sheets.

### *Glossary of ingredients and terms*

**Acetic acid:** acid found in vinegars. A component of the binding system used in many earthBorn water based paints.

**Acrylic:** polymer used as a binder in many wall paints; usually a petro-chemical derivative. In order to make them usable, acrylics are combined with softeners. It is the 'off gassing' of the softeners, not the acrylic itself, which is potentially harmful. earthBorn paints are acrylic-free (with the exception of silicate masonry paints).

**Alcohol:** used as a thinning agent. earthBorn paints use isopropanol, a harmless alcohol used widely in cosmetics.

**Alumina:** a white mineral that is a major constituent of many rocks and clays. Used as an extender.

**Binder:** an ingredient 'group'. Binders hold the paint together and provide adhesion. They also contribute to the flow of the paint and its resistance to abrasion. The binding system used in earthBorn Claypaint, Emulsion and Wallglaze is vinegar ester. The binder in earthBorn oil-based paints is a soya based alkyd.

**Breathability:** the ability to allow the passage of moisture through the paint film. Both earthBorn Claypaint and Emulsion have very high levels of breathability. Painting surfaces with modern paints which have low breathability can 'seal in' dampness, causing rapid deterioration of the building fabric. Using a highly breathable paint is important on new walls and plaster, which can take a number of years to dry thoroughly. Low breathable paints will also result in increased condensation, encouraging harmful mould growth.

**Cellulose:** produced from timber. Used as an extender in many earthBorn products.

**Chalk:** a soft, natural carbonate mineral used as an extender.

**Citrus turpene:** a natural oil from citrus fruit peel. Used as a solvent and perfume. Also known as d-lemon.

**Clay:** a basic ingredient of earthBorn Claypaint, in which it is used as an extender. Provides Claypaint with its unique properties. Clay of differing colours is obtained from various pits throughout Europe, providing the distinctive natural colours within

the Claypaint colour range. Not to be confused with China clay, which is a common ingredient in paints.

**Cobalt salts:** a mineral used as a lead free drying agent (in combination with zinc salts and zirconium salts).

**d-lemon:** a natural oil from citrus fruit peel. Used as a solvent and perfume. Also known as citrus turpene.

**Dolomite:** a translucent carbonate/magnesium mineral. Used as an extender and to provide whiteness to paint.

**Extender:** an ingredient 'group'. Extenders include clay, silica, chalk and talcum. They provide paint with bulk and contribute to many of its properties such as sheen and resistance to abrasion.

**Inorganic:** not derived from animals or plants e.g. minerals and salts.

**Isoparaffin:** a clear liquid used as a solvent in earthBorn oil-based paints. While it is a bi-product of the natural gas industry, it is considered harmless and is also widely used for medicinal purposes.

**Kaolin:** also known as China clay. Very fine, soft, white clay resulting from the natural decomposition of other clays or feldspar. Used as an extender.

**Linoleic acid:** derived from linseed oil. earthBorn only use supervised, organically grown flax crops. Also obtained from soya oil. Used as a drying agent in oil based paints.

**Marble:** a hard crystalline derivative of limestone. Used as an extender.

**Methylcellulose:** manufactured from wood pulp. Used as a thickener in paint and many wallpaper pastes to help prevent the ingredients settling out.

**Organic:** derived from animal or vegetable matter; therefore a carbon based structure.

**Phosphate:** water softening product also widely used in the soap industry. Regulates the hardness of water during manufacture to ensure consistent quality.

**Pigments:** an ingredient 'group'. Pigments provide colour or whiteness and covering power. They include titanium dioxide, inorganic (earth) pigments and organic pigments. Organic pigments tend to include the brighter colours, while earth pigments are more durable.

**Resin:** a natural or synthetic substance used as a binder or to produce an alkyd binder (see soya based alkyd). earthBorn paints use a natural resin.

**Silicate:** a mineral used in eggshell paint to provide the semi-matt finish.

**Sodium hydroxide:** a strongly alkaline, white compound also known as caustic soda.

**Soya based alkyd:** obtained by heating soya oil and a resin together. Used as a binder in earthBorn oil-based paints.

**Soya lecithin:** made from soya oil, lecithin is used as an emulsifier.

**Soya oil:** oil from the soya bean. Used as an alternative to petrochemical solvents in earthBorn oil based products.

**Synthetic preservative:** essential to prevent mould growth in water based products. Used only in minimal quantities in earthBorn products. Less harmful to health than the moulds it prevents. It is necessary for a number of preservatives to be used in rotation, over a number of years, to ensure that they retain their potency. earthBorn paints currently use a sulphur preservative.

**Talcum:** a natural white, soft mineral comprising hydrated magnesium silicate. Has a soft waxy feel. Used as an extender. Also used widely in cosmetics.

**Titanium dioxide:** a processed mineral used as a whitener in paint and many household products. The processing can be environmentally harmful, therefore earthBorn only use titanium dioxide from carefully controlled suppliers which recycle the acids used in manufacture and take measures to minimise the environmental impact of the solid waste (airborne and waterborne).

**Trinatrium citrate:** a salt from citric acid used as a wetting agent.

**Vinegar ester:** manufactured from alcohol and acetic acid. As paint dries, the polymerisation of vinegar ester monomers binds the paint. There are numerous grades and types of vinegar ester. earthBorn paints exclusively use a very pure type in which virtually all monomers polymerise, resulting in little or no smell and 'off gassing'. It is this off gassing, in significant quantities, that causes potential health problems.

**VOC:** volatile organic compound. Any organic (carbon based) compound that evaporates from paint. VOCs are harmful to health and the environment. Many earthBorn products are virtually VOC free, unlike many of their counterparts.

**Zinc salts:** used as a lead free drying agent (in combination with cobalt salts and zirconium salts).

**Zirconium salts:** used as a lead free drying agent (in combination with cobalt salts and zinc salts).