PLASTER

APPLICATIONS

Surface mortar consisting of a mixture of binder, water and sand. Depending on the place of use, we distinguish outdoor, indoor and plinth plasters. Outdoor plasters can be colored in their material, thus giving the final, visible surface, while indoor plasters typically have a surface finish (eg painting, wallpaper).

PRODUCTION PROCESS

The binder for plasters can be lime, cement, gypsum, silicate, silicone or synthetic resin.
The raw materials are usually mixed in the factory, but can also be mixed at the point of use. During factory production, only the solid ingredients are mixed together and the water is added at the point of use, or the whole mixture is prepared and distributed ready for use.

MAIN ENVIRONMENTAL IMPACTS

The main environmental impacts by the production of plasters are due to the production of binder (cement, lime, gypsum, etc.) and the extraction of sand. See binder and aggregates data sheet for more information.

MATERIALS

Source: www.kemikalrt.hu

TECHNICAL DATA

Thermal conductivity (W/mK)	0,8-1,0 W/mK
Density (kg/ m^3)	1000-1200 kg/m3

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WALL PAINTS, OIL - BASED PAINTS, VARNISHES

APPLICATIONS

The paints, oil- based paints and varnishes are the final surface covers applied in a thin layer.
They consist of a binder, a solvent, and in some cases dyes - pigments - and fillers.
The binder may be inorganic as lime, silicate - or organic as synthetic resin. The solvent is usually water or oil.
The wall paints are applied in 1-3 coats on a plastered, smoothed (or textured), sometimes polished surface. It is important that the receiving surface has adequate porosity (water absorption capacity) so that the paint does not peel off.
The most common type of wall paint is water-based paint with resin binder, better known as dispersion or dispersed wall paint.
Oil-based paints are typically used on less porous surfaces such as wood or metal. Their binder is organic (usually synthetic resin).
The varnish forms a transparent surface, it is practically a pigment free solvent paint and is typically used on wooden surfaces.

PRODUCTION PROCESS

The technology of paint production can be divided into three basic processes. The first is premixing, the second is dispersion and homogenization followed by packaging.
During the premixing, a binder solution (in the case of a non-liquid binder) and a pigment paste are formed (from pigment powder and solvent). During the dispersion, the solid particles (pigments, fillers, etc.) are dispersed in the liquid medium with a high-performance special mixer. The desired color is adjusted by adding pigment paste or powder. The homogeneous mixture is then packaged.

MAIN ENVIRONMENTAL IMPACTS

In a life cycle perspective, paints have a potentially significant environmental impact only if the painting is repeated often during the lifespan of a building. Concerning specifically climate change, the impact of painting is however not relevant compared to other components of wall structures.

MATERIALS

Source: www.rankito.hu

Source: www.hogyan-kell.com

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