BEECK'sche FARBWERKE

Rev. 06/01

The AGLAIA List of Raw Materials

Listing according to AGN (Association for Natural Colors) Quality Standards
AGLAIA exclusively formulates using the following natural raw material sources:

- ▶ Renewable raw materials of plant origin (such as dammar resin, linseed oil) or of animal origin (such as beeswax, milk casein, shellac)
- ▶ Mineral raw materials (such as chalk, earth and mineral pigments).

Aluminum silicate

In finest distribution artificially precipitated filler of thickening effect.

Barite

Natural barium sulfate used as a white pigment and bodying filler in wall paints and plasters.

Beech cellulose

The cellulose portion in beech wood. As a fibrous white filler perfect for indoor reinforcement of wall paints and plasters.

Beeswax

Especially pure and unbleached animal wax. Classic base material for indoor wood refinement products.

Beeswax soap

Potash, dissolved in hot water, is mixed with unbleached beeswax. The thus produced beeswax potash soap is an excellent emulsifier and wetting agent.

Borax

Natural mineral from salt lakes of various regions (e.g. North America, Turkey). Decomposer with preservation effect for different natural resins and casein.

Boric acid

White powder of antiseptic action, produced through acidification of borax.

Boric salts

Natural, higher alkali borates from salt lakes. These heavy metal free anorganoboron compounds have a preservative effect when used in water soluble coatings. Also effective as fungicide and insecticide when used for preventive wood protection acc. to DIN 68 800. When used properly, non-hazardous to human health and non-outgassing into the ambient air (keyword: outgassing wood preservatives).

Ca/Zr/Mn/Co drying agents

Plant oil containing coatings need atmospheric oxygen for drying. In order to achieve acceptable drying times, oxidation is speeded up through the use of drying agents. Unlike common toxic barium and lead compounds formerly used, we today use combinations of calcium (Ca), zirconium (Zr), manganese (Mn) and cobalt (Co) in state-of-the-art natural paints. The drying agents are produced using metal oxides and organic acids, such as linseed oil fatty acid (for obtaining linoleates).

Carnauba wax

Very hard plant wax recovered from the leaves of the Brazilian carnauba wax palm. Ideal for floor waxes.

Cellulose ether

Through chemical modification of wood cellulose, essential additives for water thinnable coatings are obtained. Viscosity and processing features can be controlled even when adding only very small quantities.

Chalk

Fine powder of natural calcium carbonate from the Swabian Jura. Recovered directly outside our front door. A valuable, and for us a cost effective filler with view to saved transport costs.

Citrus peel oil

Regenerative plant solvent from renewable raw material sources, recovered from the pressings of citrus fruits in fruit juice production. Free of pesticides. Clearly the best alternative from an ecological and toxicological point of view.

Clove oil

Essential oil with disinfecting properties, recovered through steam destillation from different parts of the clove tree. Also used in dentistry.

Colophonium, lime-hardened

Through conversion of hydrated lime with colophonium (pine resin) at higher temperatures, so-called lime-hardened colophonium is obtained, a modified wood resin of significant hardness. Used mainly in AGLAIA HARD RESIN OIL.

Colophonium glycerol esters

Again, colophonium is conversed at higher tempera tures with a second component. Through esterifying with glycerin, a reaction product of fat cleavage, colophonium glycerol ester is produced, a modified resin with a high elasticity and good weather resistance.

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Dammar resin

Light colored, elastic wood resin used as a binder for lacquers and glazes. Country of origin: Sumatra.

Dehydrated castor (stand) oil

Drying oil recovered through dehydration of castor oil, with the features of both linseed oil and wood oil.

Diatomaceous earth

Pure diatomaceous earth (structural fossile silicic acid of algae) used as a matting and diffusible filler in lacquers and glazes.

Earth and mineral pigments

Today, organic synthesis chemistry offers a virtually endless number of artificial coloring substances. They are all secondary products of crude oil with the corresponding high loads on the environment when being produced and disposed of. Based on its 100-year experience in the manufacture of silicate paints, BEECK exclusively relies on anorganic pigments. These are pure earth colors such as Terra di Siena or mineral pigments that are produced in simple chemical processes. All pigments used are toxicologically tested and absolutely non-toxic.

Ethanol, denaturated with gum spirit of turpentine

Regenerative solvent recovered through fermentation of biomass rich in carbohydrates (sugar beet). For AGLAIA products, denaturation required by law is exclusively performed with carene-free gum spirit of turpentine, not with synthetic chemicals.

Eucalyptus oil

Essential oil recovered from the leaves of eucalyptus trees. Used in small quantities as a disinfectant in water based natural paints.

Fir-needle oil

Essential oil recovered from conifer firs through steam destillation. Has preservative and perfuming qualities.

Glycerin

Polyvalent alcohol from fatty plant oil cleavage. Used as an auxiliary agent.

Iron Mica

In Silesia and Carinthia naturally occurring shining black iron oxide pigment. May be used as an alternative to toxic heavy metals in corrosion protection paints.

Kaolin

Particularly swellable porcelain clay, used as a stabilizing filler in natural resin dispersion paints.

Lavender oil

Essential oil recovered through steam destillation from fresh blossoms of real lavender.

Lecithin

Natural phospholipide, produced through extraction from soybeans. Of the same emulsifying effect in both food and natural paints.

Linseed oil soap

Linseed oil saponified with ammonia water. Used as a wetting and dispersing additive in water based products.

Linseed (stand) oil

Through heating up to 280°C, under exclusion of air, linseed oil is made into the more elastic, more stable linseed stand oil, also refered to as bodied or thick oil.

Marble lime hydrate

Historic mineral binder in lime paints and mortars. Produced through burning of powdered chalk and subsequent dry extinguishing.

Mica

Natural alumina silicate shiny leafy flakes. High-quality filler with reinforcing properties.

Milk casein

Most essential protein constituent in milk, obtained through acidification of skim milk. By the way: for AGLAIA in food quality. Used as a binder in AGLAIA CASEIN BINDER PAINT and AGLAIA STRUCTURAL CASEIN PAINT. In combination with mild alkali such as borax used as an emulsifier.

Natural asphalt

Earth pitch recovered from asphalt rock with wood protecting features.

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Natural gum milk

White, milky sap flowing out when the trunks of Hevea brasiliensis (Brazil rubber tree) are slit. Hevea brasiliensis is cultivated to a large extent on huge plantations in tropical areas. As a highly concentrated emulsion of natural caoutchouc in water, this milk serves as a permanently flexible binder in adhesives. For stabilizing, the sap is added a little ammonia water immediately after recovery.

Olein

Oleic acid of plant origin produced during alkaline fat cleavage. Used in combination with alkalis such as ammonia water or borax, a most effective emulsifier.

Potash

A mineral in plant ashes, produced when wood is burned. Acts as a mild alkali for saponification of plant resins, oils and waxes. When fused with quartz, potash waterglass is obtained.

Quartz powder/Quartz sand

Apart from felspar, most common lithospheric mineral. Ecologically valuable filler for paints and plasters as it is almost unlimitedly available.

Refined linseed oil

Traditional lacquer binder of a high elasticity and good penetration properties. Recovered through cold pressing of grounded linseeds. The slimy substances contained in the oil are removed through heating and filtration using bleaching earth. In the last few years, oil flax cultivation has again revived in Germany, including certified organic production.

Safflower (stand) oil

Drying plant oil from the seeds of dyeing carthamus. Used in dietary foods and also as a binder in natural lacquers.

Shellac

Metabolic product of kerria lacca commonly found on resin-rich trees in India, Burma and Thailand. Twice a year, the branches of these trees are collected and the adhering stick lac is removed. This raw shellac is dissolved in ethanol and discolored for AGLAIA through physical methods without the use of chemicals. After removal of alcohol through destillation, a light yellow, transparent resin is obtained that is perfect as a binder for quick-drying insulating coatings. Also used by the food industry for covering fine chocolates.

Shellac soap

Through saponification with thinned ammonia water, shellac can be transformed into its water soluble ammonium soap. A valuable additive for water based products.

Silicic acid

Pyrogenically precipitated, extremely fine-particle silicic acid for improving the surface properties of natural resin paints. Also for use as a matting agent for surface treatment.

Soda waterglass

Water dissolved sodium silicate, produced through melting of quartz with soda. Acid resistant mineral binder for adhesives. Similar properties as potash waterglass, the binder in silicate paints.

Swelling clay

Clay minerals with a high swelling capacity, formed through decomposition of volcanic tuff. Of thixotropic effect, avoiding the depositing of pigments. Are surface-treated when used in oil based systems.

Talcum

Natural magnesium silicate with a lamellar structure. Increases the abrasion resistance of the surface as well as the adherence when used as a filler in lacquers and wall paints.

Thyme oil

Essential oil of a characteristic spicy smell, recovered from Spanish thyme.

Titanium dioxide

White pigment with high covering qualities, produced in waste acid-free chloride process. In many products not (yet) replaceable by environmentally safer white pigments without quality losses. However, from a toxicological point of view, titanium dioxide is absolutely harmless.

Tragacanth

Recovered from branches and trunks of Astragalus types. Natural gum used as a thickener and binder.

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Turkey red oil

Sulfated castor oil (olein) with wetting and emulsifying features. Already in the early Middle Ages used as a plant dye for textiles („Turkey red“ or „Krapp root“).

Wood stand oil

Plant oil recovered from the nuts of the Chinese tung tree. As a stand oil characterized by excellent qualities such as quick drying, great hardness and water resistance. Usually boiled down in combination with other oils and resins.

Xanthan

Polysaccharide with thickening and stabilizing properties produced by Xanthomonas campestris (bacteria).

Zinc/Aluminum/Calcium stearate

Metallic soaps of stearic acid, main product obtained during cleavage of animal and plant fats. When used in natural paints, metallic soaps cause certain surface properties such as matting or water repellency.

Zinc white

Lead-free zinc oxide used as a white pigment. Acts additionally as a drying accelerator in oil based coatings. Pharmaceutical products containing zinc oxide are used for treating wounds.

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