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Lock Paint Materials

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Annotation: *This article discusses the types of lacquer paints and what their qualities should be. You can also learn a little about what methods are used to produce them.*

Keywords: *Varnish, paint, quality, enamel, solvent, liquid, material, alkyd-lacquer, pentafital, alcohol, building, exterior, polyester, coating, urea, wood, rot*

Varnishes are liquid or paste-like materials that are applied to the surface to protect metals from corrosion, wood corrosion, and decorative items. They consist of film-forming substances (alkyd, phenol-formaldehyde, epoxy, polyester resins, perchlorovinyl resins, polyacrylates, cellulose nitrates, etc.). Some natural materials, such as vegetable oils and rosin, are also film-forming agents. Some paints and varnishes contain solvents, pigments, and various additives. There are colorless and colored, transparent and opaque (opaque) types of paints and varnishes.

Transparent materials include alif, varnishes, opaque materials, various paints, rough surkov materials, and surface smoothing masses (primers). Varnishes should protect the surface, create a smooth and glossy finish, and beautify the finish.

There are several types of lacquer paints

Oil paints. Constant mixing of pigments, binders, fillers in special devices produces thick oil paints. Olives are added to give the consistency needed for use. Oil paints are used to paint metal, wood and plaster surfaces. Oil paints should dry at a temperature of 18-20C for 24 hours. Detergents are added to speed up the drying process.

Enamel paints. They are obtained by mixing pigments, fillers and varnishes. Varnishes are divided into glyphtal, pentophthalmic, perchlorovinyl types. Enamel paints are applied separately, over oil paints and are characterized by hardness and gloss. Enamel paints can be used for painting sanitary ware and surfaces that require durability, for interior and exterior decoration work, for painting and painting windows.

Water-based paints. Glue dyes are obtained by mixing glue, pigment, filler and water. Lime, chalk, cement and others are used as powder fillers. Lime paints are used in places where sanitary requirements are required, for painting interior and exterior surfaces, liquid glass is used for painting the facade of buildings, interiors, and water-based paints are used for painting plastered surfaces of buildings.

Emulsion paints. They are obtained by mixing pigments, fillers, binders, water and emulsifiers in special devices. In this case, the organic solvent is saved or completely replaced by water. Oil emulsion paints are widely used to paint the interior and exterior surfaces of buildings.

Lockers. There will be alcohol lacquers, nitro lacquers and polythenes. Alcohol varnishes are a solution on the surface of resins. Due to the low content of dissolved resin in the polythene, the coating on the varnished surface is thinner. Alcohol varnishes are used to cover wooden surfaces, and polythenes are used to polish these surfaces. Nitrocellulose is obtained by adding plasticizers to a solution of nitrocellulose in organic solvents. These varnishes dry quickly and become shiny. As they are flammable and toxic, precautions must be taken. In the restoration of buildings and structures, it is advisable to use paints containing natural components.

Alkyd lacquers are white spirit, solvent naphtha or other solvents in petroleum solvents that are alkyd liquids (polyhydric alcohols are polyols, products formed by the interaction of polybasic acids and monobasic high fatty acids). They are designed to cover metal and wood products and structures. Depending on the type of alkyd varnishes, alkyd varnishes are glyphalic (liquid glycerin based on phthalic anhydride and tribasic alcohol), pentaphthalic PF (pentaerythrite and phthalic anhydride-based resin), alkyd acrylic (AC), alkyd-urethane (AU) and others. The formation of a film in such varnishes occurs due to polymerization or polycondensation reactions. Coatings based on alkyd varnishes are characterized by high weather resistance, elasticity and good adhesion to the painted surface.

Varnishes can be roughly divided into three groups: varnishes based on natural dyes; varnishes based on thermoplastic synthetic paints; thermosetting varnishes based on synthetic paints. Alkyd-urea varnishes, which contain glyphalic,

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pentaphthalic resins, urea. A hardener (organic acid) is added to these varnishes before useThey are used to decorate wood, as parquet and furniture varnishes.The coatings are very durable, hard, shiny, water and heat resistantPolyester paint-based lacquers - polyester lacquers do not contain volatile solvents, the components of these lacquers are additives peroxides or hydroperoxides, unsaturated polyester paint styrene and other interactions when added to the base for varnish decoration copolymerization with binders. an insoluble polymer can form a cross-linking network. Varnishes are used to decorate furniture, they form hard, transparent, heat-resistant, chemically resistant coatings to water, alcohol and detergents.

Ether cellulose varnishes are solutions of cellulose nitrate with some dyes, plasticizers in volatile organic solvents. They dry quickly (20-60 min), give water-resistant, strong and hard films, easy to polish. They are used to decorate furniture, musical instruments, pens and more. To protect metal coatings from corrosion, Kuzbass-lacquer is produced a high-temperature part of coal tar (or bitumen) in a carbon hydrocarbon solvent. Designed to paint the primer for the first time. They must ensure good adhesion (proximity to the surface) i.e. contact with the painted surface and other layers of the coating.

Alkyd enamels are suspensions of pigments in alkyd varnishes, the most common in the range of enamels. Enamels are produced for interiors (for example, GF-230, PF-233), which are used for painting furniture, windows, doors, metal surfaces. PF-266 enamel is used. Enamels for external use based on pentafital varnishes (e.g. PF-115) are intended for painting household appliances, refrigerators, bicycles and strollers. Alkyd enamels are elastic, weather-resistant, durable and have good decorative properties.

Nitrocellulose enamels are suspensions of pigments in nitro lacquers that dry quickly. Coatings produced in a wide range of colors have a high effect. Disadvantages include flammability, low thermal stability, and extinction under the influence of sunlight. Enamels are produced for interior (NTs-25), exterior (NTs-132 and NTs-11) and others.

Water-dispersion paints (another name for water emulsion, water-dispersed, water, latex) are suspensions of pigments in aqueous dispersions of these film-forming substances, more precisely in emulsions. Water is not a solvent, so water-based paints are complex colloidal systems that contain 12-15 components. Their main: 50% aqueous dispersion of film-forming polymers polyacrylates, polyvinyl acetate, etc. Emulsifiers Surfactants of various nature pigments white or other colors Dispersants improve the wetting ability of pigments thickener increases the viscosity of the paint Anti-foaming agents Antiseptics and other components that prevent foaming when applied. Plasticizers or antifreezes increase the frost resistance of paints and coatings based on them. Antifreeze protects the water phase of the paint from freezing when the temperature drops. Freezing of products is not allowed when storing water-dispersion paints.

The film formation of these dyes depends on the astabilization of the dispersion, the polymer particles stick together after the water evaporates. The resulting films are matte and porous, they dry in 3-12 hours, imported dispersion paints dry in 20-60 minutes

Latex paint These materials are water based. This is a very universal and standard paint, another feature is that it is very easy to clean. It is used for repairs in exterior and interior finishes. Another advantage of latex paint is that it is easy to thin with water and it is just as easy to clean tools used by repair workers with a simple soap solution.

This paint is more environmentally friendly, has no toxic properties and no pungent odor. As the surface to be painted begins to dry, this odor will gradually dissipate, but like other paint materials, the room should be well ventilated. Latex paints are more resistant to high temperatures, fire and fading. This allows them to be used in a variety of finishing exterior work. Another advantage over other paints is that latex paints dry quickly within an hour. Due to their unique structure, they adhere very tightly to the painted surface and are resistant to various natural influences.

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