



TECHNOLOGY OF PAINTING WORKS IN CONSTRUCTION

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Annotation : Painting their work perform technology much complicated will be Very much so a lot processes is performed , various paint mixtures and materials are used, various mechanisms, equipment and devices are used. Surfaces to be painted must be dried, cleaned of dust and dirt, smoothed out bumps and cracks on plastered surfaces before applying paint. When preparing the surface of wooden products, wood eyes and hardened resins 3 мм are cut (carved) to the 2nd depth, then these areas are covered with putty and other defects are corrected. Metal pipes , radiators and another while preparing constructions for painting, their surfaces are cleaned of rust and oil stains. Metal surfaces are cleaned with steel brushes, as well as with electric brushes and sandblasting machines.

Key words : Surface painting, priming, puttying, sanding works. Paint layer, usually, mechanisms - paint remotes, spray-gun mechanisms, water-based paints, in the preparation of the surface of wood and wooden products.

Painting of surfaces is carried out in order to protect building structures from the influence of external aggressive environment, as well as decorative decoration and improvement of sanitary-hygiene condition of rooms. The right color has a positive effect on the mood of people and their productivity.

The technology of performing painting works is quite complicated. There are many processes involved, various paint mixtures and materials are used, various mechanisms, equipment and devices are used.

Surfaces can be painted in three types: simple, high-quality and high-quality. They differ from each other in the number of works performed in preparing surfaces for painting and painting. Typically, painting is used in the decoration of utility rooms, warehouses and other secondary rooms.

High-quality painting is used in the decoration of residential, public and industrial buildings. It is recommended to paint the main rooms of the theater, railway station, museum and other similar unique buildings with high-quality painting. Before applying paint, the surfaces to be painted should be dried, cleaned of dust and dirt, the unevenness of the plastered surfaces should be smoothed, and the cracks should be plastered.

When preparing the surface of wooden products, wood eyes and hardened resins 3 мм are cut (carved) in depth 2, then these areas are covered with putty and other defects are corrected. Metal pipes , radiators and another while preparing constructions for painting, their surfaces are cleaned of rust and oil stains. Metal surfaces are cleaned with steel brushes, as well as with electric brushes and sandblasting machines.

Surface priming consists in forming an initial primer layer by giving it a primer mixture once or twice, and sometimes, depending on the type of painting, three times.

The primed surface is first leveled with a plastering mixture or by plastering the chest. Depending on how the surface will be painted, putty with glue, oil and varnish is given. The plastered surfaces are filled by applying a putty mixture to unevenness and small depressions on wooden or metal surfaces with the help of a spatula or special mechanisms. The surface is puttyed one or two times.

Preparation of the surface for painting: after the completion of priming, puttying, sanding, it is started to be painted. The paint mixture is given to it once, and sometimes twice, in order to create a paint curtain of the same color on the surface. After the first layer is completely dry, the second layer is given, otherwise the surface will crack. The paint layer is usually given by means of mechanisms - paint remotes, spray guns and other mechanisms, and paint is applied to small surfaces by hand with brushes. Paint mixtures are applied thinly and evenly, there should be no traces of brush bristles on the paint film, and the entire surface should be even. For painting surfaces, fur rollers are used instead of brushes. Such a roller is flattened into a paint mixture in a special tub. The tub has a net to squeeze out excess paint that has been soaked into the roller.

When the surfaces are painted with the help of mechanisms, labor productivity increases several times, the pace of painting works is accelerated.

When painting the interior of the room, double-legged ladders and light curtains are used, and when painting the outside of the building, inventory havozas and hanging kajavas are used.

Water-based paints are usually applied to plastered, brick and concrete surfaces, as well as plasterboard surfaces. When painting inside the building, water-emulsion binders are used. Metal surfaces should not be painted with aqueous compositions, as this can cause corrosion. Surfaces must be prepared and treated before painting. Preparatory work includes cleaning surfaces, removing old paint and dirt.

Processing includes sealing of joints, sanding, priming, puttying before painting.

When preparing the base for painting surfaces with water-based paints, various fillers and primers are used to create a flat surface.

Newly plastered surfaces can be painted with adhesive, silicate and casein compositions after drying (moisture content no more than 8%). If moisture is higher than normal in some areas of newly plastered surfaces, it should be dried by natural or artificial methods.

Repaired or plastered plastered, reinforced concrete panel surfaces are cleaned of dust and dirt and primed.

In a normal paint, the primer is applied once. If the surface is damp, the primer is re-applied.

In good and high-quality painting, the surface is primed two to three times.

The color used is added to the primer to be applied last time. A specific primer is used for each paint.

Water primers. For glue-based paints, primers with copper sulfate or bitter stone are used.

Glue-soap primers are used for glue-based water-emulsion artificial paints and lime-based paints.

Primers for silicate paints are prepared by dissolving potash liquid bottles in water.

Aqueous primers are usually sprayed on the surface in a thin layer using kraskapults. An indicator of the saturation of the surface with the primer is that the surface starts to reflect light from a dull appearance.

In oil paints, alif is applied to the surfaces to be painted for the purpose of priming. For this purpose, white alcohol or turpentine is mixed with alif. Alif is applied to the surface by hand,

and the finished film is strong. Alif is applied with a brush on small surfaces, and with a roller on large surfaces (picture 1,3). 5% (relative to the weight of the alif) of the paintable pigment is added to the alif, which helps to identify the areas untouched by the alif and ensures the surface is covered with paint when painting with paint.



Figure 1.
Brush types.



Figure 3. Roll and put a net inside bathtub

Filyonka (makeup line) drawing . One or more finishing lines of a different color are drawn along the border separating the parts of the wall painted in two colors; this curved line (or lines) called filyonka combines the parts of different colors of the wall and creates a whole surface.

The tile is drawn as follows: with the help of hemp (cord) dipped in pigment (dry paint), a trace is first made on the wall, the tile is drawn from this trace, brought to the standard, and the corresponding areas are corrected. A special brush and a simple or slotted ruler are used for drawing.

Water-glue liquid paint is used to paint the border of the part of the surface painted with glue paint and watercolor. In other cases, i.e., on surfaces painted with watercolors, a film is drawn in watercolors. The paint intended for the bottle is prepared only before use and in small quantities.

Painting panels and friezes. In kitchens, bathrooms, toilets, hospitals, colleges, and schools, the lowest part of the wall, 1.6-1 from the floor, 8 mis called a panel, and the panel is painted with watercolor, enamel, and emulsion paints. The part of the wall above the panel is called gabelen, and it is usually painted with water-based paint. If there is a narrow frieze between the tapestry and the ceiling, then this place is painted in the color of the panel or ceiling. The

upper border of the panel should be parallel to the floor line, and the frieze should be parallel to the ceiling. These lines are drawn using hemp dyed with colored pigment.

Sandblasting finishing . Surfaces are prepared for sandblasting in the same way as they are prepared for high-quality painting with watercolors. Then the surface is painted with water color and then colored sand is sprinkled on the freshly painted surface. After the first layer of sandblasted paint is completely dry, the surface is painted a second time and sandblasted again. This time, more liquid, that is, less viscous paint is used. In order for the sprinkled sand to adhere firmly to the surface, the paint should be sprayed with a paint sprayer in a very thin layer. The sand to be sprinkled must be fine, clean and dry. A low-pressure device is used to spray sand on the surface in the form of a stream.

Finishing by splashing paint . Painted surfaces can be finished by splattering paint using a brush or brush. The size and uniformity of the sprayed paint drops depends on the density of the paint. The thicker the composition, the larger the splashed droplets. The color of the splashed paint drops should be different from the color of the surface to be painted. Often, several colors of paint are splashed so that colorful drops form on the surface. If a brush or brush dipped in paint is held close to the wall and hit on a piece of board or the palm of the hand, small drops of paint will splash on the wall; for sprinkling paint, the brush can be moved with the help of an edged board, or else a paint sprayer is used for this purpose, in which case the apparatus must be given very little air.

Tortsovkalash is another type of finishing of the painted surface, which is used for surfaces that have been applied with watercolor and glue paint; in this case, a non-glossy, rough film is formed on the wall surface. As soon as the surfaces are painted, they are trotsovka with a rough brush called tchotka-tortsovka. A coarse brush with short bristles is used for sanding surfaces to be applied with water-based paint, and a soft brush with long bristles for surfaces to be applied with adhesive paint. Freshly painted surfaces are sanded in two directions at 45° and 90° angles, holding the brush perpendicular to the wall surface. In the Tortsovka method, a darker paint is used for the last paint layer of the surface to be finished.

Silk finishing . The surface of the wall prepared for painting is divided into squares or rectangles called "mirrors". Two methods of dividing the surface of the wall into cells for the purpose of silk finishing are the most common. In the first method, the face of the "mirror" is divided into five equal parts by five horizontal lines; each piece is divided into similar colors, but the color of the outermost pieces on the top and bottom sides should be dark, the color of the next pieces should be lighter, and the middle piece should be very light. The borders of these pieces should be corrected by painting with a brush in such a way that the transition from one color to another is smooth and the border in the middle is not visible at all. The second method is that the surface of the "mirror" (cell) is divided into pieces by concentric circles. Because the color of the edges is darker and the middle parts are lighter, they look like silk on the surface.

Before painting the facade of the building, the following works have been completed: the roof of the building has been closed, beams, rafters, facade belts, canopies have been built, chimney caps, balcony fences have been installed, plastering work has been completed, including the repair of cornices, columns, pilasters, and other decorative elements. should be; at the same time, cracks in the junctions of wall panels and blocks should be plastered, leveled, plinths should be plastered and tiled, sloping sidewalks should be built around the outer walls of the building, and damaged areas of the walls should also be repaired.

The facade of the building cannot be painted in the following cases: when it is hot and dry, when the sun shines directly on the walls, when it is raining, when the walls are wet, when there is a strong wind, when the walls are frozen in winter.

The same procedure is used to prepare the exterior walls as the interior walls of the building are prepared for painting. When preparing previously painted facades for finishing, it is usually necessary to remove the old paint layer from the surface of the walls using dry sandblasting or water-sandblasting devices. Dry-cleaned surfaces are dusted using compressed air; and when the wet method is used, it is washed with clean water.

When repairing the facade of the building, it is necessary to pay attention to the uniform texture of all surfaces. Accordingly, the surface of the walls cleaned from the old paint layer is plastered with a mixture of fine sand. After cleaning the surface of brick and concrete walls from dust and dirt, they are painted without additional treatment. Salt stains on the surface are cleaned by applying a primer.

Water-based paints with lime, lime-cement, cement and silicate types, and water-free paints with perchlorvinyl and polymer-cement types are used for painting facades.

Calcareous contents plaster over is given Surfaces grunting and in painting brushes , rollers and to paint from the devices used . Precipitation during and winter in the cold this contents to use possible not _

Lime-cement paints surface without priming , purple brush using one layer by doing rubbed and then one in the plane spreading is leveled . Paint traces to each other connected places known not standing for surface one road two people " brush to the brush in " connect " mode paint and dyers at that of air bed on one character on the level locations necessary _ of the wall architectural details divided only in places work to stop can _ Contents work of place in itself is prepared . To the surface paint spray for the nozzle diameter 3-4 мм and of the trinity hole slotted has been handle from the sprayer if used too will be Air only when the temperature is not lower than +5° C the walls to paint can _

Cemented contents block, brick , concrete, asbestos cement and another pore surfaces to paint for is used . On the face old paint layer has been walls sand using a scattering apparatus or a wire brush with by rubbing cleaned , then hot water or of hydrochloric acid weak solution with is washed . Necessary when surfaces with cement putty is puttyed .

Water non-infectious silicate contents . Silicate paint with the surface to be painted is solid to be need , therefore for this contents of the walls new and strong old plaster , as well as concrete, brick the walls and wood surfaces to paint for is used . Such surfaces from painting before they had a density of 1.15 g/cm³ potassium with a liquid bottle is grunted .

Facades to paint apparatus or using a roller it is painted twice . After priming the surface , 15-20 hours after that, for the first time again from 15-20 hours after it is painted the second time . While painting brush with smeared paint layer well done spreading leveling need _ This of content keep duration is 1 day . Water non-infectious silicate contents one to the shift which amount preparation need _ The sun the light fell straight standing at the same time as the air temperature has dropped below +5°C at times this kind of paints with to paint permission not given

Perchlorvinyl contents . Surfaces this kind of paints with handle paint sprayer or using a roller it is painted twice . Window and of the doors raxhlari , waist scales , linear details and others like that brushes by means of will be painted . First paint layer from drying then 24 hours after second layer is applied .

From perchlorvinyl dyes in winter, the temperature is up to -20°C when is used . At minus temperature to the paint soapy solution does not add

Precipitation in time facades , as well as wet surfaces to paint is prohibited .

Perchlorvinyl paints to use before their viscosity reduction of this for paints warm 8-12 hours in the room storage need _ Getting worse the rest paint solvents adding diluted . Paint necessary the color occupation reach for to him different in color ready -made perchlorvinyl paints mixed . To paint this on purpose pigments or another basically prepared paints to add is prohibited .

Paint white with color primer in advance processing given surface is applied . Job from the end after brushes , rollers and sprinklers well done wash cleaning need _

Polymer cement contents of the building outside concrete, brick , stone (block), plastered (moisture the level of which does not exceed 8%) walls , as well as metal constructions finishing for is used .

PVA dispersion based on prepared paints-in summer , PXV dispersion based on prepared paints and , most of the time, in winter to use recommendation will be done . This paints thick layer by doing when rubbed too good without layering dry hard , that's it according to such paints relatively uneven surfaces finishing for if used will be Long for a period of time enduring paint curtain harvest to do for paintable surface first of all from the base moved , blistered standing old paint wire brush from the layer with by rubbing cleaning and dust compressed the air with take away need _ the wall on the face cracks , cracks and so on defects putty is leveled . Air warm at times thickness 0, 3-0,5 mm coming paint layer 1-1, in 5 hours it dries .

Water-emulsion contents . Swab placed surfaces , concrete, brick , wood and metal structures paint finishing from VA type (polyvinylacetate) and KCh type (styrene butadiene) paints is used . From painting before metal surfaces watercolor or glyphal primers with is grunted . Polyvinyl acetate or styrene butadiene from paints is used . From painting before metal surfaces oily or glyphal primers with is grunted . Polyvinyl acetate or styrene butadiene paints with makeup surfaces ready in the case with perchlorvinyl putty is puttyed . Plaster layer small particulate and one sexual when such a surface is polyvinyl acetate or styrene butadiene contents with will be painted . Air only when the temperature is not lower than $+5^{\circ}\text{C}$ water-emulsion synthetic paints to use can _

In cases where it is not reasonable to build a basin from the ground to the top floor for economic reasons, work is done standing on suspended basins or kajavas. Mainly used in the repair and finishing of the walls of high-rise buildings, the hanging basins are suspended on steel ropes.

The hardness of wires and wires should be at least 6 times higher than the specified load limit. Before starting the work, the suspended cranes or cranes are tested statically with a load more than 25% of the full working load and dynamically by lifting and lowering a load more than 10% of the calculated working load. Test results are formalized by writing a document.

Suspended beds are attached to special hooks. Hangers are tested by hanging a load twice the working load for at least 15 minutes.

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