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Whitewash for Farms and Homes

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Cold water paints such as whitewash, calcimine paints and cement washes are used occasionally to improve the appearance of fences and some farm outbuildings when factory prepared paints are too expensive. These cold water paints or washes are not as durable as oil base or latex base paints, but they protect surfaces for up to 2 years if properly prepared and applied.

Remove any old oil base or latex paint before applying whitewashes. Normally, repainting with the same type of paint will be more economical than removing the old paint.

The basis of whitewash is lime. Water is a thinner and carrier which evaporates as the wash dries. Unless some substance is added which will provide continued adherence, the lime will flake off quickly. Materials used to provide this quality include flour paste, milk, casein, glue, molasses, sodium silicate (water glass) and soap solutions. If you use an organic substance such as milk or flour paste, add a preservative such as zinc sulphate, salt, alum or formalin to prevent putrefaction or decomposition.

Ordinary whitewash is made by slaking quicklime in water. Place the lime in a pail or barrel and pour the water over it. Then cover the containers with a heavy cloth or board and allow it to stand for 1 hour.

If too little water is added, the lime will not hydrate completely, and will scorch. Too much water slows slaking through a temperature reduction. Once the slaking is finished, additional water can be added until the whitewash is the proper brushing or spraying consistency.

Use about 1 gallon of water for each 5 pounds of quicklime. Lumpy slaked lime indicates that not enough water was added to complete the hydration or slaking process.

Whitewash may be made with commercial hydrated lime, but it will not adhere as well as that made with quicklime.

Whitewash Formulas

Factory whitewash for interior use on walls, ceilings and posts.

(1) 62 pounds (1 bushel) of quicklime; slake with 12 gallons of hot water.

(2) 2½ pounds of rye flour; beat in ½ gallon of cold water; add 2 gallons of boiling water.

(3) 2½ pounds of common rock salt; dissolve in 2½ gallons of hot water.

Mix (2) and (3); then pour into (1) and stir until well mixed.

Weatherproof whitewash for exterior use on buildings, fences or other structures.

(1) 62 pounds (1 bushel) of quicklime; slake with 12 gallons of hot water.

(2) 2 pounds of common table salt; 1 pound of zinc sulfate; dissolve in 2 gallons of boiling water.

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(3) 2 gallons of skimmed milk.

Pour (2) into (1); then add (3) and mix thoroughly.

Lighthouse whitewash

(1) 62 pounds (1 bushel) of quicklime; slake with 12 gallons of hot water.

(2) 12 pounds of rock salt; dissolve in 6 gallons of boiling water.

(3) 6 pounds of portland cement.

Pour (2) into (1); then add (3). Stir until well mixed. Add water to brushing consistency.

Government formula

(1) 62 pounds of quicklime; slake with 12 gallons of hot water (keep covered during slaking).

(2) 12 pounds of rock salt; dissolve in 6 gallons of warm water.

(3) 3 pounds of ground rice; place in boiling water and boil to a thin paste.

(4) ½ pound of powdered Spanish whiting; 1 pound of clear glue; dissolve in warm water.

Pour (2) into (1); then add (3) and (4). Mix well and let stand for several days. When whitewash is to be used, heat it and apply as hot as possible with whitewash brush.

Additional Formulas

I. (1) 62 pounds of quicklime or 80 pounds of hydrated lime; 15 gallons of water; let stand until slaked.

(2) 2½ pounds of rye flour; ½ gallon of cold water until thoroughly mixed; add 2 gallons of boiling water.

(3) 2½ pounds of salt; dissolve in 2½ gallons of water.

(4) 1 pound of clear glue; dissolve in 1 gallon of warm water.

Mix (3) and (4); add to (2) and mix. Then add to (1), stirring vigorously. Strain and add water to brushing consistency.

II. (1) 50 pounds of hydrated lime; dissolve in 6 gallons of water.

(2) 2½ gallons of skim milk; 3 pints of household ammonia; 1 gallon of water; mix well.

(3) 5 pints of formaldehyde; 3 gallons of water.

Pour (2) into (1) while stirring vigorously. Hold until ready to use; then add (3) slowly and mix well. Add water to bring to brushing consistency.

III. (1) 50 pounds of hydrated lime; mix with 7 gallons of hot water to form a thick cream.

(2) 12 pounds of salt; 6 ounces of powdered alum; dissolve in 4 gallons of hot water; add 1 quart of molasses.

Add (2) to (1) and mix thoroughly. Thin as desired with water.

IV. (1) 50 pounds of hydrated lime; mix thoroughly with 7 gallons of hot water.

(2) 5 pounds of casein; soak in 2 gallons of hot water (about 2 hours).

(3) 3 pounds of trisodium phosphate; dissolve in 1 gallon of water.

(4) 3 pints of formaldehyde; dissolve in 3 gallons of water.

Add (3) to (2) and mix thoroughly. When these and (1) are cool, add (3) and (2) to (1) slowly while mixing. Just before using the whitewash, add (4) slowly to avoid forming a gel. Use within 1 day.

Notes on components:

Hydrated lime can be used to replace quicklime at the rate of about 1.3 pounds of hydrated lime to 1 pound of quicklime. Remember, hydrated lime reduces adherence.

One ounce of alum to each gallon of whitewash increases its adhesion.

One pint of molasses added to 5 gallons of whitewash will increase penetration on wood and plaster.

Whitewash may be made fire-resistant by adding 1 gallon of water glass (35 degrees Baume) to 10 parts of whitewash.

Adding 1 pound of cheap bar soap, dissolved in 1 gallon of boiling water, to each 5 gallons of whitewash will provide a glossy finish.

Coloring:

- Cream — 4 to 6 pounds of ochre per 62 pounds of quicklime.
- Buff — 6 to 8 pounds of raw umber and 3 or 4 pounds of lampblack per 62 pounds of quicklime.
- Fawn — 6 to 8 pounds of raw umber, 2 pounds of lampblack and 2 pounds of indian red per 62 pounds of quicklime.

Other colors can be made with siennas, maroon oxide, ultramarine blue, chrome oxide and venetian red. Stir lampblack into hot water with soap or into a cold solution of borax to overcome its greasy nature before using it.

Application:

Whitewashes are generally applied with a broad, flat brush. Spread the whitewash lightly without brushing it in. It can also be applied by spray pump or air brush, but with considerable waste. Coverage will depend upon the surface as well as the consistency of the whitewash.

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