



MAKING WHITE CHEESE PAINT

Practical sheet for white cheese painting 20110402

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Recipes and materials for the manufacture of natural coatings and paints

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Cottage cheese paint

March 2011, the price of casein soared and the price per kg exceeded €20.

While waiting for the price of this natural powder binder to become affordable again for most families, we are turning to the 0% fat cottage cheese recipe with which we can formulate a quality natural paint.

The preparation uses the casein binder which is contained in 0% white cheese at a rate of approximately 60 gr per kg.

Warning to those in a hurry:

Doing it yourself requires sourcing raw materials and then preparing them in the workshop or on your site according to a precise recipe, which inevitably increases the preparatory work time. What's more, with cottage cheese, it is necessary to obtain supplies from supermarkets. The indicative price is €0.80 to €1.20 per kg. The 1st price white cheese does the job very well!

It is also strongly recommended to have taken measurements of the surfaces to be painted and to have calculated the ratio between the number of layers envisaged per piece and the number of liters of paint to be manufactured progressively.

The values below provide a total value of 1 liter of cottage cheese paint:

Supplies :		For 1 liter	... liters
charge	fine marble powder 8 microns	650g	
pigment	titanium white or color pigment	100g	
clay	bentonite	30g	
cheese	White cheese 0%	500g	
lime	aerial lime	10g	
water	clean water	100ml	
water + adjuvant	Syrup composed the day before of 3 g of xanthan gum diluted in 200 ml of water	200ml	
oil	mint or clove leaf essential oil	¼ drop	
	volume of paint obtained	1 litre	
	yield	8 M2	

Preparation of the dry mixture:

1/Mix the dry powders (marble powder, pigment, bentonite) in a large bucket, except xanthan gum. Blend in a blender mechanically for 2 minutes or in a locked box for a small quantity. The mixture can then be stored in airtight bags or boxes for later use.

2/The day before the liquid preparation, swell the xanthan gum in water at a rate of 1.5% of the weight of the water. (ex: to make only 1 liter of paint: 3gr for 200 ml of water)

Preparation of liquid paint:

3/Pour the 0% white cheese into the bottom of a bucket then sprinkle with the aerial lime on top (without water containing xanthan gum). Mix mechanically for 2 minutes. Leave to rest for 5 minutes.

4/Pour the powder mixture (marble powder, pigment and bentonite) on top and mix mechanically, removing clogging with a whisk from time to time so that there are no more amalgams on the walls. Gradually add the 100 ml of water.

5/Incorporate finally the volume of gelled water with xanthan gum added.

Only add the necessary amount of drops of essential oil if only you should save paint for the next day. Mix to make the paint homogeneous.

6/If necessary, sift the paint through a paint filter or a fine strainer to retain any grains. Your natural paint is ready to be applied.

Application :

The paint is applied with a brush and roller on clean, matt and fixed bases. Like any other product, avoid applying it with a spray gun to avoid misting and the risk of ingestion of particles into the lungs.

It is not suitable for varnished or closed surfaces such as glycerol, cellulose or acrylic satin lacquer type paints and of course for heavily waxed surfaces. (waxing emulsions for large surfaces often contain only a small part of wax, which makes them directly recoatable after carrying out a scraping adhesion test). The addition of safflower oil of around 50 ml per liter allows it to stick to difficult bottoms.

Do not try to overload or double the coats too hastily because the opacity of the paint and its rendering are only revealed the next day after it has completely dried.

The paint film becomes irreversible and washable approximately 3 weeks after application.

The repainted rooms can be re-entered immediately after application, walls still fresh, without risk to your health!

Advice:

The dry preparation can be kept indefinitely but the liquid mixture with the cheese is made throughout the day according to surface needs. The yield is 8 m² per liter of paint. It is advisable to provide a little more to maintain comfort and peace of mind during application.

For careful work, keep a bucket of lukewarm water with a sponge on hand to remove any traces of paint on the plinths and frames as well as stains on the floor. This avoids leaving your fingerprints all over the house.

The paint can be tinted in light pastel colors with pigments. To directly obtain strong colors, you must replace the value of titanium white directly in the recipe with pigment. The better quality and finely ground the pigment, the greater its opacity and coverage of the paint. Note that maintaining a low titanium white value provides better opacity.

Yield :

8m² per liter

Warning :

As cottage cheese paint is not a tension-free paint, it is imperative to wash away the old floury whitewashes and in the case of a fragile support, to reduce the cheese value in the composition. Applying with a brush helps the paint to penetrate and fix the background, while the roller pulls the surface, sometimes risking tearing off the background.

Conservation :

Avoid overdosing on essential oil as the effect can quickly become heady and annoying. It is useless if you apply your paint during the day.

Also avoid using "clove" essential oil because its potency easily generates phenols. Prefer the "leaf clove". The paint can be stored for a few days in an airtight container and stirred before each use.

Responsibility :

The information given in this practical sheet is intended to inform the reader of the characteristics and properties of homemade casein paint. This information is given in good faith and for information purposes only. It will be up to the reader and applicator to establish a precise description of the nature and condition of the background as well as to respect the implementation process, the standards and DTU in force.

The author's responsibility is also excluded from the result of the implementation as well as any consequences relating to the implementation of the recipe, techniques and products used.

Happy painting!

Calculate your quantities of supplies on

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