



# **PAINTS AND THE ENVIRONMENT**

GUIDELINES FOR PAINTING SUSTAINABLY





The strain on the environment keeps growing. Therefore it is increasingly important to pay attention to the environmental impacts of all products including paints. At Teknos, we want to reduce the impact of paints and coatings on the environment and we strive to develop sustainable solutions. We work intensively to improve the sustainable and safe use of our products.

If you select the right paint and calculate the right amount for the project, painting in itself can be an environmentally responsible act. Paint protects surfaces of buildings and other materials and considerably extends their service life. Furthermore, applying a new coat of paint or varnish to old furniture can give them a new lease of life. By making the right choice, you can influence yours and your environment's well-being.

Ecolabels for paints are based on unbiased research. This means by choosing eco-certified paint, you can be sure the product is sustainable. Paints made by European manufacturers are a good choice as EU legislation guides manufacturers towards developing safe products. If in doubt, ask a professional to help you choose the right product.

When planning a painting project, think about what you are going to do with the leftover paint. Could you use the paint for another project or offer it to friends or family?

Once the painting project is complete, it is also important to recycle the paint waste, packages and equipment correctly.

For Teknos, sustainability is a mindset. It is a part of the company's strategy and affects everything we do. We can help you make sustainable choices. In this guide, you can find useful information about the ingredients, labels and recycling of paints.



# A TO-DO LIST FOR SUSTAINABLE PAINTING PROJECTS

1. Selecting the right kind of paint for each surface is essential and makes the painted surface last longer. If you want to make a sustainable choice, go for waterborne products with ecolabels. Find out about the products in advance and, if needed, ask a professional to help you choose the right product.
2. Calculate the amount of paint you need as accurately as you can to avoid leftover paint going to waste.
3. Read the instructions on the package and follow them. Our website also offers plenty of advice for painting different surfaces. Protect yourself and your environment well.
4. Painting equipment should not be washed out in mains discharge sinks as this can cause harmful substances to end up in the water course, instead wash out in a container and take the waste water to a Recycling centre. Recycle all waste generated, such as dry paints, paint pots, unwanted leftover wet paint and unusable painting equipment.
5. We recommend using the leftover paint for other painting projects or passing it on to others. The paint will keep well in its own pot if the pot is undamaged and the lid can be closed tightly. The paint can also be poured into another airtight and clean container. Only use clean painting equipment: the hygiene of the equipment also affects the shelf life of leftover paint. If you are storing the paint for the next use, you should not let it freeze.



## CALCULATE HOW MUCH PAINT YOU WILL NEED

Minimise the amount of leftover paint by calculating in advance how much paint you will need. The amount of paint needed will depend on the surface to be painted and its condition, roughness, shade and, of course, the painter.

First, you need to calculate the area of the surface to be painted and check the product coverage on the package or on the Teknos website. After that, you can calculate how much paint you will need using the following formula: total area to be painted  $\text{m}^2$  / paint coverage  $\text{m}^2/\text{l}$  = the amount of paint needed in litres.

**Wall paint:** The coverage of interior wall paint is around 7–10  $\text{m}^2/\text{l}$ .

**Exterior paint:** The coverage of house paint is around 5–8  $\text{m}^2/\text{l}$ .

**Furniture:** You can apply two coats of paint to four chairs with a one-litre of paint.

# LABELS AND CERTIFICATES

**Look for labels which tell you about the paint's environmental impacts, safety and durability.**

## **Allergy label**

The Allergiatunnus ("allergy label") label is granted by the Finnish Allergy, Skin and Asthma Federation to products that meet the 72-hour low emission criteria. These products do not contain harmful concentrations of fragrance or other commonly sensitizing or irritating ingredients. By choosing a product which has the Allergiatunnus label, you will also be taking care of your health. Paints with this label also meet the criteria for the M1 emission class.



## **The Nordic Swan Ecolabel**

Paints with the Nordic Swan Ecolabel satisfy the strict criteria of the Nordic ecolabel that take the product's entire life cycle into account. Paints with this label are an eco-friendly and safe choice all the way from ingredients, production and use to disposal as waste.



The criteria for the Nordic Swan Ecolabel include stringent health criteria for interior paints that place strict limitations on the amount of volatile and semi-volatile organic compounds (VOC and SVOC) and the concentration of formaldehyde. Preservatives that accumulate in organisms are not allowed, and the amount of preservatives has also been limited.

Paints with the Nordic Swan Ecolabel also meet strict quality criteria for hiding power, coverage and scrub resistance.

## M1

The M1-label tells that the products meet M1-classification for low emission and odour to maintain good indoor air quality. Building materials and paints used indoors can be classified into three classes, of which M1 is the gold standard, according to the compounds they emit. The M1 class includes low-emission paint products and materials from which only very small amounts of compounds evaporate into the air of the room. The classification is done by the Finnish Building Information Foundation.



## CE

The CE marking demonstrates the product satisfies the relevant requirements set out for its functioning by EU directives and regulations. Receiving the marking requires testing by an external party to ensure that the paints and coatings work as promised. The CE marking covers products such as fillers and products for protecting concrete surfaces.



## BioCote®

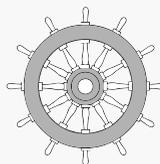
BioCote® silver phosphate glass antimicrobial technology to preserve the coating surface and prevent colonisation and degradation caused by microbial growth once applied to the intended substrate. It is recommended for spaces with high hygiene requirements.

BioCote® has been shown to decrease microbes such as Escherichia coli, and Methicillin-resistant Staphylococcus aureus (MRSA) - by up to 99,99%.



## MED-certification

Products marked with the helm symbol, i.e. MED-certified products, must be used for ships sailing under an EU flag. The certification means the products meet fire safety requirements and can be used for purposes such as painting the ships' indoor or outdoor furniture or varnishing the ship's wooden floors.



# BASIC INSTRUCTIONS FOR PAINTING

- Carefully remove dust, grease and dirt from the surfaces to be painted before painting. If the surface to be painted has been painted before, remove cracked, damaged or flaking paint.
- Previously painted or varnished surfaces should be wiped down with a paint cleaner.
- If required repair any damaged areas, apply putty to holes and scratches and let it cure. Sand down the places where putty was applied and remove the sanding dust.
- Protect the adjacent surroundings of the area to be painted properly, be mindful of overspray if spray painting, and protect yourself with equipment such as gloves, eye protection and a paint mask.
- Check Teknos' painting instructions to see whether the product or the surface requires using a primer or an adhesion promoter.
- Always shake and stir the paint well before painting.
- Apply one to two coats of paint, depending on the paint's hiding power and the painting instructions.
- Maintain the wet edge and do not over work the paint as this will leave marks in the finished surface.

## WHAT ARE VOC EMISSIONS?

Volatile organic compounds are compounds that evaporate from products such as building and interior decoration materials and detergents. The EU's VOC directive limits the amount of VOCs, such as solvents, used in paints meant for painting buildings. Separate VOC limits have been specified for waterborne and solvent-based paints. The VOC emissions of waterborne paints are significantly lower.

# WHAT DOES PAINT CONTAIN?

Paints contain both natural and synthetic raw materials. Together with the way the products are used, the ingredients used in paints determine how paint affects indoor air quality, occupational safety and the breathability of the painted surface. The key constituents of paints are binders, pigments and fillers, thinners and additives.

## Binder

The most important component effecting the properties of a paint is the binder. Alkyds and acrylics are typically used as binders for paints meant for consumers. The purpose of a binder is to bind the paint ingredients together, give the paint its desired properties and make the paint stick to the surface. Binders include solid or liquid polymers and natural materials. Many of the paint's properties – such as drying, adhesion and durability – are determined mostly by the binder. This is why paints are often named after their binder.



## Thinner

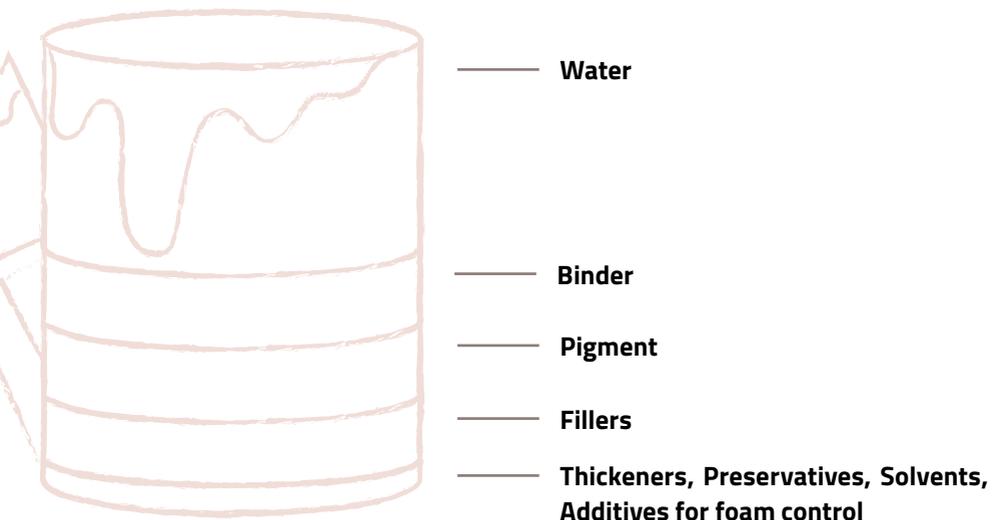
A thinner is an evaporating liquid that is added to paint to reduce the viscosity of the paint. The thinner can also affect the spreading, evenness and drying of the paint. Paints use water or solvents as a thinner. Paints that use water as a carrier (i.e. waterborne paints) can be thinned with water, and painting equipment can also be cleaned using water. For solvent-based paint, white spirit is a typical thinner. When using solvent-based paints, the painting equipment should also be washed with the paint's thinner.

## Pigments

Pigments give paint its colour and effect the paint's hiding power. There are also special pigments which, in addition to colour give the paint additional properties such as anticorrosive and UV reflecting pigments.

## Additives

Paints also include additives, which are used to improve the paint's drying, viscosity, homogeneity or shelf life. Biocides can be added to paint to protect it against microbial growth on surfaces such as facades that are exposed to the elements. This helps painted surfaces last longer without maintenance.



# RECYCLING PAINT AND PACKAGING

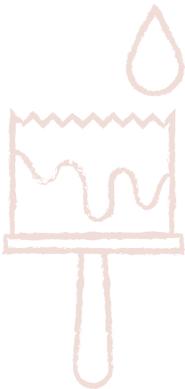
Recycle all waste generated by painting: dry paints, paint cans, wet paints, painting equipment and the water used for washing the equipment. We recommend using the leftover paint for other painting projects or passing it on to others. Paint that is not needed must be disposed of appropriately.

Wet paints, varnishes, fillers and thinners as well as the water used for washing painting equipment are classified as hazardous waste. Take them to the nearest collection point for waste recycling. You must not pour them down the drain, put them in the bin or leave them in nature.

## Do you know how to wash your paint brushes?

Always wash your brushes in a separate container and take the water containing the paint to a collection point for waste in a bottle or sealed container. Alternatively, you can wait for the water to evaporate, leaving only dry paint on the bottom of the container, which you can then dispose of according to the instructions.

Painting equipment can also be washed with a brush cleaner in accordance with the product's instructions. In fact, using a brush cleaner is better than using water. After use, you should let the brush cleaner rest in a container until the paint residue





sinks to the bottom of the container. The clear brush cleaner can be stored in another container and reused. The portion containing the paint must be taken to a collection point for waste or left to dry on the bottom of the container. Dispose dry paint waste into mixed waste.

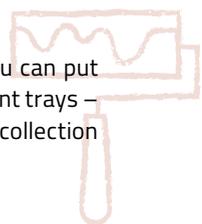
If you still need the piece of equipment for the same paint the next day, do not wash it. Instead, put the brush or roller in a sealed plastic bag for the night.

### **What should I do with dry paint or an empty paint pot?**



Paint cans that are completely dry or empty can be recycled normally, which means sorting them into containers for mixed waste, energy waste or metals according to the material they are made of. If there is very little paint in the can and the paint is not enough for a new painting project, you can let the paint dry on the bottom of the can and dispose of it together with the can. When the paint has dried completely, the can may be recycled in accordance with the material it was made of. However, please note that only completely empty and clean plastic packaging may be recycled as plastic.

### **What should I do with painting equipment?**



Clean them thoroughly and store for the next use. Alternatively, you can put completely dry painting equipment – such as brushes, rollers and paint trays – into containers for mixed waste. Wet equipment should be taken to a collection point for waste or stored until dried.

### **How should I store leftover paint?**



We recommend storing paint for the next painting project in its own can if the can is undamaged and the lid can be closed tightly. The paint can also be transferred to another airtight container with a lid. A container made of glass is a better option than a plastic container. Always store your paints in a location where the temperature will not fall below freezing. Waterborne paint will typically keep for three years from the production date in an unopened pot.



**For more information**

[www.teknos.com](http://www.teknos.com)

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