

WAX CRAYONS: PRODUCT FEATURES AND PRODUCT QUALITY

WATERCOLOUR PAINTS
COLOURED PENCILS
OPAQUE COLOURS
MODELLING BEESWAX
WAX CRAYONS
DECORATING WAX

Ingredients - STOCKMAR wax crayon colours contain the following:

INGREDIENTS	% (approx.)
Paraffin (microcrystalline waxes)	52
Light fastness	30
Radiant colour	10
Heat resistance	8 or more

The quantities specified are only approximate because the amount of pigment can vary depending on the strength of the colour, and this in turn affects the proportions of the other ingredients.

Why are our wax crayons and blocks designed the way they are?

Since the 1950s, STOCKMAR wax crayons and blocks have been developed in collaboration with teachers, childcare workers, art therapists and artists. These exchanges have led to STOCKMAR'S long-standing focus on the following three aspects when it comes to creating its wax crayon colours (which, incidentally, are exactly the same in our crayons as in our blocks):

- Colour spectrum
- Colouring qualities
- Health and environmental safety

Colour spectrum

STOCKMAR'S colour spectrum derives from the company's connection with Waldorf education and its partnership with Waldorf teachers and childcare workers, and is based on Goethe's theory of colour. Indeed, the harmony between the three primary colours of red, blue and yellow and the secondary colours of orange, green and violet is inspired by Goethe's colour wheel.

The pigments used by STOCKMAR are synthetic-organic pigments manufactured in Europe (Germany, Switzerland). They are selected based primarily on the following two criteria:

1. They give STOCKMAR crayons and blocks the colour tones needed to complete our colour wheel.
2. They comply with the pertinent statutory regulations, allowing us to declare categorically that STOCKMAR wax crayon colours pose no risks to health or the environment. More information on this topic can be found below.

The "lovely glow" for which our colours are renowned is thanks to the choice of pigments used and to the specific ratio of pigment to the other ingredients in our wax crayon colours. This special recipe is also responsible for the excellent colouring qualities of STOCKMAR wax colour crayons.

Colouring qualities

It's not only our crayons' colour spectrum, but also their colouring qualities, that set them so clearly apart from other wax crayon colours. Since the 1950s, STOCKMAR'S focus has been on ensuring that its wax crayons meet the same stringent requirements.

According to these, STOCKMAR wax colour crayons should possess the following characteristics:

- A strong but non-paste-like stroke of colour
- Excellent blendability, allowing for
- layered colouring.

These colouring qualities clearly distinguish STOCKMAR wax crayons from pastel crayons, for which they are often mistaken, and from most other wax crayons, which use different fillers (such as chalk) to achieve a pastel- or paste-like stroke on paper (we therefore avoid using the term "Kreiden" (German for chalk) for our wax crayons and blocks).

STOCKMAR wax crayon colours do not contain any fillers at all. Rather, they contain an especially high proportion of colour pigment, which gives them their characteristic radiance. The especially luminous tones created through blending and layering the different colours are also thanks to the aforementioned colour spectrum and to the pigments used in the crayons' manufacture.

The fact that STOCKMAR wax crayons and blocks are so well-suited to colouring in layers results from the specific wax components used. In addition to beeswax, STOCKMAR wax crayon colours contain plant-based stearin as well as industrially manufactured microcrystalline waxes.

The beeswax gives STOCKMAR wax crayons colours their pleasant scent. It also contains essential oils that help to preserve our wax crayons colours, enabling us to do without additional preservatives.

The particular blend of wax components used in STOCKMAR wax crayons is the result of decades of manufacturing experience and of careful tailoring according to our customers' individual requirements. It is what gives our crayons their translucence as well as their non-stick, non-crumble properties, which in turn makes them so well-suited to layering.

These qualities also make STOCKMAR wax crayon colours ideal for other colouring techniques, such as

- transparent colouring on transparent carrier material (tracing paper)
- scratching (sgraffito)
- wax melting (encaustic painting)

Instructions on how to perform the various colouring techniques with our wax crayon colours can be downloaded from our website at www.stockmar.de.

Health and environmental safety

We know how quality-conscious our customers are, especially our core customers from the school and kindergarten sector, that is teachers, childcare workers and parents. We know just how much these customers value the colour spectrum and the colouring qualities offered by STOCKMAR wax colour crayons.

We also know that quality-conscious customers attach great importance to health, environmental friendliness and sustainability.

Ever since STOCKMAR began manufacturing wax crayon colours, we have been wholeheartedly committed to producing only products that are entirely safe both in terms of health and the environment.

To ensure that we comply with this principle, we select only ingredients that meet all the provisions of the applicable toy safety standards. And wherever we feel that these provisions don't go far enough, we apply the pertinent food and cosmetics safety provisions to ensure the health and environmental safety of our wax crayons. The microcrystalline waxes we use correspond precisely with the pertinent cosmetic industry regulations (in fact, our wax crayons are even used in the cosmetics industry).

Moreover, for the added safety of our customers and for our own, we have an independent laboratory (Labor für Rückstandsanalytik, Bremen) carry out random sampling on every single batch of raw materials delivered to us.

We display our consistent product quality, achieved through careful ingredient selection and verified through regular raw material checks, on the packaging of our STOCKMAR wax crayons. Here customers will find the CE label for toy safety as well as quality seals "spiel gut" awarded by the German association Arbeitsausschuss Kinderspiel und Spielzeug e.V. (www.spielgut.de) and "AP - conforms to ASTM D-4236", awarded by the American organisation ACMI (www.acminet.org).

Why STOCKMAR uses paraffin (microcrystalline waxes)

Paraffin's non-toxicity and insolubility make it a popular ingredient in many sectors. It is a common ingredient in lotions, skin creams and lip care products, and even the main ingredient in many skin protection creams for small children. It is also used in foods (sweets, chewing gum, wax coatings for cheese) and in the medical sectors (as an antidote in the treatment of poisoning and as a laxative). It will only form deposits in the human body if consumed regularly over a long period of time.

Regular consumption over a long period of time is highly unlikely in the case of wax crayons.

Moreover, according to experts, the health hazards associated with paraffin have nothing to do with its potential to form deposits in the body. Rather, they relate to the carcinogenic substances that can be released when paraffin is heated. These health hazards affect people whose work regularly involves heating paraffin and, as a result, breathing in the fumes this emits. This risk therefore does not affect users of cosmetics, medicines and wax crayons.

In the manufacture of our wax crayons, we use high-melting microcrystalline waxes that only melt at temperatures of around 70°C. So is there any chance of them melting in children's hands or if swallowed? Not if their melting point is 70°C, no.

The microcrystalline waxes in our wax crayons boast exceptionally good colouring qualities. In contrast to chalky fillers, which tend to dull down colours, these waxes lend translucence and vibrancy to the pigments used.

Paraffins are by-products of motor oil production. As mineral oil products they are, of course, not renewable. Nonetheless, there are currently no resource and ecologically friendly alternatives to paraffin that would enable us to achieve the same excellent colouring qualities.

Soya and palm oil are often promoted as renewable alternatives, but they cannot offer the same product quality and, from our point of view, do not offer more benefits in terms of ecological soundness. Their use creates a higher demand for monocultures and a need for more agricultural land, which in turn leads to rainforest destruction and the manifold environmental and social problems associated with it.

Why STOCKMAR wax crayons only contain 10% beeswax – no more, no less

STOCKMAR wax crayons contain 10% natural beeswax. This gives them the right degree of translucence as well as their pleasant scent. Beeswax also contains essential oils that help to preserve our wax crayons colours, enabling us to do without additional preservatives.

Using much more than 10% beeswax would compromise the colouring qualities of our wax crayons. Not only would this lead to the release of less pigment, but, because wax has its own colour, it would distort our product's carefully developed colour tones. Using a higher proportion of beeswax is therefore not necessary.

Beeswax – a highly advertising-friendly term at first glance. After all, it's a natural, renewable product, it smells good, and everyone admires bees. So, what is beeswax exactly? It is a precious and limited natural product. In the interest of bees, whose numbers throughout the world are falling drastically, it should only be used responsibly and in moderation. Any beekeeping activities aimed at increasing beeswax production would subject the bees to unnatural conditions and thus be highly ecologically dubious.

Moreover, why would we want to use more beeswax? Doing so would be of no benefit to the quality of our products and thus result in the unnecessary consumption of this precious natural resource. This is why STOCKMAR consciously only uses 10% beeswax in its wax crayons. For more information on beeswax and bees, go to www.mellifera.de.

STOCKMAR products bear international quality seals

HALLMARKS

EG (EN71) Conforms to ASTM
D-4236



With this seal, STOCKMAR stands behind the quality of its products.

STOCKMAR quality is monitored safety.

STOCKMAR products are hazardous neither to people nor the environment.

Status: 04.2013