

41000 Van Dyck Brown, Cassel Earth

Product designation: Leonardite
CAS No: 129521-66-0
Color Index No: Natural Brown, C.I. 77727

Amorphous, combustible, earthy lignite consisting of humus and humic acid, which is mined particularly in Meissner near Kassel, in Saxony, Thuringia, and near Cologne, and is used as paint. The brown, fine lignite is dried, ground, and (mixed with oil) applied. Oil consumption is quite high due to its high absorbency. The paint dries slowly and gradually turns gray in the light.

In acids, the color decomposes with carbon separation; in alkalis, dissolution occurs with a brown color. Kassler brown paints are translucent, making them suitable for glazing and graining. It is a very dark reddish brown with pronounced glazing properties. Today, the color is usually mixed from burnt sienna or burnt umber with ultramarine blue. Mixtures of burnt sienna and black are also common.

Chemically speaking, this material is finely ground brown coal mixed with humic acids and, in some cases, manganese compounds. Although the rich color of this pigment is captivating, Doerner and Wehlte strongly advise against its use in art, as the material is not considered to be lightfast. Furthermore, it is not stable in either acidic or alkaline environments. Regardless, Kassler brown was very popular, especially in the 19th century, and I can still remember getting real Kassler brown in tubes in the 1960s. It was not until the 1970s that it began to be replaced by more durable mixtures with approximately the same glazing properties, so that the term Kassler brown is still familiar today.

Since the pigment is still available in specialist shops today, interested artists can grind the paint themselves, although this is not entirely easy! The binder requirement in oil is quite high and, due to its drying-retarding effect, linseed oil mixed with a little resin solution (e.g. hard drying oil) is recommended; siccativ is useful. In any case, the material must be ground very thoroughly and laboriously under the glass runner. When making watercolor paint, the pigment should first be moistened with spirit before being finely ground in a mortar with water and gum solution. In painting and restoration techniques, this material still has limited significance today in that it is mainly used for stains and masking paints.

Composition

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| Humic acid: | 50 – 60 % |
| Organic matter: | > 95 % |
| Humidity: | 30 – 40 % |
| pH Value: | 5 - 6 |