



Rev 0
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TEKNA KOLOR

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Coloured iron oxides powder



DESCRIPTION

TEKNA KOLOR is a range of powder dyes consisting of synthetic metal oxides with high pigmenting efficiency for industrial applications. Due to their high fineness, the dyes in the TEKNA KOLOR range have excellent colouring power.

AREAS OF APPLICATION

Colouring of concretes or mortars for:

- smooth, sweeping or washed-effect architectural concrete.
- draining concrete;
- prefabricated panels or elements;
- external/internal walls;
- elements of street furniture, etc.

ADVANTAGES

- excellent resistance to light and weather.
- high resistance to water, acids and alkalis.
- good coloring power;
- high covering power.

FEATURES

TEKNA KOLOR is a range of powder dyes.

The dyes in the TEKNA KOLOR range are classified in class B (according to the NF EN 12878 standard), so they are compatible with all concrete, including reinforced concretes.

Type	Class (NF EN 12878)	Bulk density (kg/m3)
Brown	B	0,8-1,1
Black	B	0,6-0,9
Red	B	0,7-1,0
Yellow	B	0,3-0,5

The dyes in the TEKNA KOLOR range can be mixed with each other, and it will therefore be possible to obtain an infinite number of colours. TEKNA CHEM is also available to create colors on request (depending on the type of color, the colors could be classified in class A or B).

The colour of the cement and the fine elements of the sands are decisive for the final colour of the concrete or mortar.

In the case of large particular construction sites, it is important to provide for the supply of the total quantity of pigments in a single solution and belonging to a single manufacturing batch.

In fact, small variations in color may occur between different production batches.

PHYSICAL PROPERTIES

State

dust

Color

brown, black, red, yellow



TEKNA CHEM S.p.A.

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Ion content (%) ≤ 0.1
Classification according to EN 12878 B

INSTRUCTIONS FOR USE

The pigments must always be dosed according to the weight of the binder: from 3 to 6% in the case of a grey binder and from 1 to 4% in the case of a white binder (example: 1 cubic metre of concrete dosed with 300 kg of grey cement, with a dosage of 4%, will require 12 kg of pigment). An increase in the pigment dosage ensures stronger and more decisive colors. However, once you reach the saturation point normally between 5 and 6%, an increase in dosage will not bring any appreciable improvement. The use of white cement will allow you to obtain brighter colors than with gray concrete. A low A/C ratio (e.g.: 0.3/0.4), will allow you to obtain more marked colors with the same pigment dosage.

To avoid variations in colour from one mixture to another, it is advisable not to change the characteristics of the aggregates (grain sizes, colour) in any way and always use the same amount of water. In fact, the bleaching of concrete increases as a function of the A/C ratio. In the case of overdoses of water, the excess not necessary for the hydration of the cement, forms capillaries rising towards the surface that will create bleaching phenomena.

Pigments are composed of particles whose specific surface area is up to 10 times larger than that of concrete; it is therefore essential to provide for a perfect dispersion of the same inside the dough. In the opposite case of pigment concentration, stains may appear and a reduced color of the concrete will be obtained. It is therefore advisable to carry out a dry mixing of the pigments with the aggregates, then introduce the cement, and finally water.

In all cases, it is advisable to carry out preliminary tests to test the mixture and validate the colour of the concrete.

PRESERVATION

2 years in its original unopened packaging if stored in a dry environment away from moisture.

PACKS

25 kg bags.

20 kg bags for yellow, green and orange versions.

LEGAL

The information contained in this technical data sheet, although representing the most advanced stage of knowledge, does not exempt the user from carrying out accurate preliminary tests in his own conditions of use and operation. Therefore, no liability is accepted for improper use of the product.



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