

MAPECOLOR PIGMENT

Powdered colorants



PRODUCT DESCRIPTION

Mapecolor Pigment is a range of powdered colorants made from synthetic metal oxides. Thanks to their extremely fine texture, colorants from the **Mapecolor Pigment** range have a high colouring capacity.

WHERE TO USE

Colouring concrete and mortar for the following applications:

- smooth, brushed and exposed aggregate architectural concrete (**Color Paving System**);
- drainable concrete;
- prefabricated panels and members;
- internal and external walls;
- street furniture and urban features, etc.

TECHNICAL CHARACTERISTICS

Mapecolor Pigment is a range of powdered colorants available in 5 standard colours.

Colorants from the **Mapecolor Pigment** range are classed as B according to NF EN 12878 standards which means they are compatible with all types of concrete, including reinforced concrete.

Type	Class (NF EN 12878)	Bulk density (kg/m ³)
Brown	B	0.8-1.1
Black	B	0.6-0.9
Green	B	0.9-1.2
Red	B	0.7-1.0
Yellow	B	0.3-0.5

Colorants from the **Mapecolor Pigment** range may be mixed together to obtain an infinite variety of colours. MAPEI is also available for the supply of personalised colorants (in such cases the colorant may be class A or B, depending on the final colour).

The colour of the cement and the fine elements in the sand are important in determining the final colour of concrete or mortar.

For particularly large sites, it is important that the total quantity of colorant required is purchased together from the same production batch; there may be slight variations between different production batches.

Mapecolor Pigment has the following advantages:

- excellent resistance to light and bad weather;

- high resistance to water, acids and alkalis;
- good colouring power;
- high covering capacity.

How to use the product

The amount of pigment to add is calculated according to the weight of binder in the mix: from 3 to 6% for grey binders and from 1 to 4% for white binders (example: 1 m³ of concrete with 300 kg of grey cement, at a rate of 4%, will require 12 kg of pigment).

If more than the recommended amount is added the colour will be stronger and deeper. However, once saturation point is reached, which is normally between 5% and 6%, adding more pigment will have no appreciable effect.

Using white cement will allow brighter colours to be obtained than with grey cement.

Low water/cement ratios (e.g. 0.3/0.4) allow stronger colours to be obtained with the same amount of pigment.

To avoid obtaining variations in colour between different mix batches, we recommend using aggregates with the same characteristics (particle size and colour) and to use the same amount of mixing water. Concrete becomes lighter as the water/concrete ratio increases and, if too much water is added, the extra amount that is not required to hydrate the cement rises by means of capillary action towards the surface and makes the cement lighter.

The pigments are made up of particles with a specific surface area 10 times greater than that of cement, so it is extremely important that they are dispersed uniformly and perfectly throughout the mix. If the pigments are concentrated in certain areas, stains could form and the concrete may not be coloured correctly. For this reason we recommend mixing the pigments dry with the aggregates before adding the cement and water.

Always carry out preliminary tests to check the mix and to verify the colour of the concrete.

COMPATIBILITY WITH OTHER PRODUCTS

Mapecolor Pigment is compatible with all admixtures used to make standard and special concrete, particularly with:

- The **Dynamon** and **Mapectast** ranges of super-plasticisers and plasticisers with high water reduction properties;
- **Mapectast SF** micro-silica based powdered admixture used to make high quality concrete with high strength, impermeability and durability characteristics;
- The **Mapectair** range of admixtures used to entrain air required for resistance to freeze/thaw cycles;
- The **Mapecture** range of curing products produced by MAPEI S.p.A. to reduce rapid dehydration of concrete;
- The **Mapectform** range of form-release compounds for stripping formwork from architectural concrete.

CONSUMPTION

From 1.0% to 6.0% of the weight of binder.

PACKAGING

Mapecolor Pigment is available in cardboard boxes each containing two 5 kg water-soluble bags.

STORAGE

2 years in its original, closed packaging in a dry area away from damp.

TRANSPORT

No restrictions.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapecolor Pigment is not considered hazardous according to current norms and regulations regarding the classification of mixtures. It is recommended to use protective gloves and goggles and to take the usual precautions for handling chemicals.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY



Consistency:	powder
Standard colours:	brown, black, red, green and yellow
Ion content (%):	≤ 0.1
Classification according to EN 12878 standards:	B

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

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