

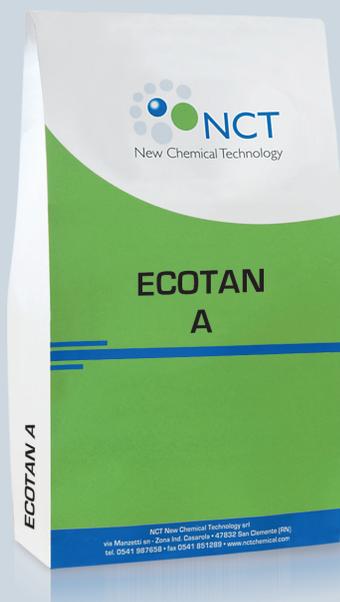


ECOTAN A

**NANO-PARTICLE SIZED TITANIUM DIOXIDE
WITH PHOTOCATALYTIC ABILITY**

ECOTAN A is a very fine powder of TiO_2 anatase whose particle size is in the interval of active nanoparticles.

Its main action consists in photocatalysis stimulated by sunlight or by special lamps emitting UV rays.



ECOTAN A

CHARACTERISTICS

The essential feature of **ECOTAN A** is its capacity to emit electro-negative charges on the surface of its particles and into the surrounding environment when these particles are stimulated by UV rays from a direct light. Surface electro-negativity fosters the oxidation (*photocatalysis*) of the organic and non-organic substances that are near the surface. It also represents a valid barrier against the adhesion of any particle and in particular of the dirt. As a consequence, the surfaces treated with products containing **ECOTAN A** prevent the deposition of the dirt and, under the action of water, they turn out to be self-cleaning. This action remains active forever, provided that the presence of **ECOTAN A** persists and it is stimulated by sunlight or by special lamps emitting UV rays.

USE

ECOTAN A is employed for its self-cleaning effect in the preparation of cement skim plasters and plasters for external application, cement-based paints, lime and silicate paints.

It can also be used for resin-based paints, provided that their durability to photocatalysis is tested in advance. It is the same reason why it is not possible to use organic colorants, but only metallic oxides, in the formulation of water paints.

In order to obtain the best distribution of **ECOTAN A** in the mixture, it is advisable to pre-disperse it in a part of one of the components of the mixture, adding some *Disperflow C* if the mixture is dry or some *Disperflow CL* if it is liquid or in paste.

ECOTAN A is able to break down the polluting agents in the air: it destroys smog and makes particulate and the inorganic dirt fall.

Note: ECOTAN A is not a pigment and does not substitute for TiO₂ used as such. In the finished product, it has only a photocatalytic and self-cleaning action.

DOSAGE

The recommended dosage of **ECOTAN A** is normally of 2.0% on the solid components of the mixtures.

Anyway, it is advisable to carry out preventive tests on the specific mixtures in order to establish the most suitable and convenient dosage according to the expected results.

STORAGE AND VALIDITY

If **ECOTAN A** is stored in a dry place, in the original packaging perfectly closed, it has 12-month validity from the date of the transport document.

In case humidity is absorbed by the product, it does not jeopardize its effectiveness, but makes its dosage difficult and imprecise and its distribution in the finished mixture non homogeneous.

It is therefore recommended to close the sacks with care after each collection.

The technical data reported in this bulletin were obtained with standardised tests or rules or their modifications or according to New Chemical Technology systems. Our technical service can be asked for the methods applied. What is reported in the present bulletin represents the best of our knowledge and experience. Anyway, we advise to carry out preventive tests when using the product differently from indicated. In any case, New Chemical Technology srl do not take any responsibility for any damage or defects caused by the use of their products, since using conditions of their products are not under their control. They also inform that their technical service is at the customers' disposal for any information concerning the right use of their products.

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SPECIFICATIONS

COMPOSITION:

TiO₂ anatase

STATE: *Powder*

ACTIVE SUBSTANCE: *>96%*

COLOUR: *Ivory*

APPARENT SPECIFIC WEIGHT:

0,5 kg/dm³

GRANULOMETRY:

min. 95% < 50 nm.

HUMIDITY: *max. 4.0%*

SOLUBILITY IN WATER:

Insoluble

STORAGE:

In a protected, dry place

RECOMMENDATION

In the present state of our knowledge there are no special recommendations for the manipulation of **ECOTAN A**.

Anyway, in consideration of the particle size of the product, it is advisable to take all the precautions dedicated to the use of products in powder and avoid contact with the wet or sweaty skin.

PACKAGING

25 kg. paper sacks.

