



## Product information

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### CENSPERSE™ retarders

#### Additives – made easier to use

#### Description

Very hygroscopic retarders, who take up humidity from the air during storage and transport, tend to agglomerate, giving problems in handling the product. Given the low addition levels, too large a particle will be poorly distributed in the finished product.

CENSPERSE™ retarders are specially formulated set-retarding additives based on different acids and acid derivatives. They are fine powders produced in a special process to prevent agglomeration and aid dispersion. They are used in dry bagged cementitious systems.

As standard the following CENSPERSE™ retarders are available:

CENSPERSE PC04  
CENSPERSE PC13  
CENSPERSE PC30  
CENSPERSE RT01  
CENSPERSE RT02  
CENSPERSE RT03  
CENSPERSE RT04

On customer request other products may be tailor made. Preliminary trials have to be carried to define the required properties.

#### Chemical composition

This depends on the specific product.

#### Physical properties

Appearance: off-white, easy handling and flowing powder

Apparent density: 0.8 – 1.1 g/cm<sup>3</sup> depending on the product

#### Function

Retarders slow down the setting and early stiffening of cement based systems, producing a longer working time, by slowing down the initial reaction between cement and water. Retarders work by reducing the rate of water penetration to the cement and slowing down the growth of hydrated products.

## Advantages

Minimizes agglomeration during storage and handling. Sieving is not required prior to blending with cement, aggregates etc.  
Minimizes white specks in the final applied product. Badly agglomerated powders or large crystalline grades can cause white specks.  
Longer working time of cementitious and gypsum systems by controlled set.  
Allows controlled heat generation from hydration.  
Reduces hot weather problems.

## Applications

CENSPERSE™ retarders are used to control and extend the setting time of cement based materials. It is recommended for use in systems based on Ordinary Portland Cement (OPC).

## Addition level

The natural variations in cements and cement replacements, aggregate types, grading and ambient temperatures all affect the addition level required for a given working and retardation period. Trials should therefore be carried out to determine the correct addition level. As an initial guide, an addition level of 0.25% by weight of cement is recommended. This may have to be adjusted depending on the retardation period required, raw materials used and application.

Higher addition levels of CENSPERSE™ retarders will result in an increase in set retardation. The amount of increase will depend upon the actual level, ambient temperature, binder type and content. Over retarded cement based systems, if properly cured, will not be adversely affected after the set does occur and strength and durability are not impaired. Too high addition levels could permanently prevent hydration.

## Compatibility

CENSPERSE™ retarders are compatible with all OPC and binders, including ground granulated blast furnace slag, pulverized fly ash, hydrated lime and gypsum.

## Health & Safety

Avoid contact with skin or eyes. Protective goggles and gloves should be worn. Refer to Material Safety Data Sheet for full details.

## Storage

CENSPERSE™ retarders are pressure sensitive powders and should be stored in cool, dry conditions. Sealed containers, if correctly stored, have a minimum shelf life of 1 year.

## Packaging

20 or 25kg cartons or bags with inner polyethylene liner.

The above information and recommendations are based upon our experience and are offered merely for advice. They do not absolve the consumer from making his own tests. Responsibility for damage arising from the use of our products cannot be derived from the recommendations given. The observance of any intellectual property rights of third parties is the responsibility of the consumer in each case.

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