

# OPTEC<sup>®</sup> EC-978

Color enhancing and efflorescence control admixture

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## Product Description

OPTEC<sup>®</sup>EC-978 admixture provides color enhancement and efflorescence control to the concrete roof tile industry. It is formulated as a ready-to-use admixture to aid the extrusion process and enhance the quality and appearance of concrete roof tile.

## Product Uses

OPTEC<sup>®</sup>EC-978 admixture is especially designed for the efficient production of concrete roof tile. However, it can also be used in other manufactured concrete products such as architectural concrete masonry units and hardscape concrete products such as segmental retaining wall units and pavers. OPTEC<sup>®</sup>EC-978 improves color, via reduced efflorescence on concrete roof tile.

## Product Advantages

- Improves cement and pigment dispersion
- Minimizes efflorescence
- Enhances color
- Aids extrusion process
- Lowers absorption
- Improves compressive strengths

## Product Function

OPTEC<sup>®</sup>EC-978 admixture interacts with the cement and pigment and helps to uniformly disperse them in the mixture. OPTEC<sup>®</sup>EC-978 also lubricates the mixture aiding the roof tile extrusion process.

OPTEC<sup>®</sup>EC-978 reacts with the hydrating cement to produce a hard, less permeable surface and helps inhibit the formation of unsightly efflorescence on the surface of the concrete roof tile.

OPTEC<sup>®</sup>EC-978 may allow for a reduction of acrylic coatings used to protect the surface of the concrete roof tile. But, testing with local materials, production equipment and storage conditions is necessary to determine whether the acrylic coating can be reduced.

## Application Information

### Addition Rates

OPTEC<sup>®</sup>EC-978 admixture is generally used at a rate of 6–12 oz/ cwt (400–800 mL/100 kg) of cementitious materials including fly ash and other pozzolans. The addition rate is dependent upon the specific materials used and the desired end properties.

OPTEC<sup>®</sup>EC-978 should be added separately to the mix after the initial wetting of the cement and before or with the addition of the final mix water. Once OPTEC<sup>®</sup>EC-978 is batched, it should be mixed for a minimum of one minute, but preferably two minutes. Mix times of less than one minute should be avoided. Never add OPTEC<sup>®</sup>EC-978 to dry cement.

### Limitations

OPTEC<sup>®</sup>EC-978 is compatible with other GCP admixtures. When multiple admixtures are used however, they must be added separately to the concrete mixture. Variables such as cementitious content, aggregate gradations, processing equipment, and curing conditions may have an impact on the effectiveness of OPTEC<sup>®</sup>EC-978. Testing with local materials and production equipment is necessary to determine the end results. Consult your GCP Masonry Products representative for more information.

## Dispensing Equipment

OPTEC<sup>®</sup>EC-978 can be dispensed using conventional air diaphragm pump systems. For further information, contact your local GCP Masonry Products representative.

## Packaging

OPTEC<sup>®</sup>EC-978 is available in 55 U.S. gallon (208 L) drums, 275 U.S. gallon (1,040 L) returnable totes, and bulk. OPTEC<sup>®</sup>EC-978 weighs approximately 8.2 lbs/gallon (3.7 kg).

## Health and Safety

All precautions defined on the SDS (Safety Data Sheet) for OPTEC<sup>®</sup>EC-978 must be followed.

## Storage

OPTEC<sup>®</sup>EC-978 must be protected from freezing at temperatures of 32 °F (0 °C) and below, as the admixture is not usable once frozen. OPTEC<sup>®</sup>EC-978 has a shelf life of approximately six months from the date of manufacture. Mechanical agitation may be required when stored for a period greater than 30 days.

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Last Updated: 2022-05-06

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