SPECIALTY ADMIXTURES

Master Format #: 03 30 00 03 40 00 03 70 00

CONEX® NF

SHRINKAGE COMPENSATING ADMIXTURE



PRODUCT INFORMATION

PACKAGING

Packaged in 6 gal (22.7 L) pail with 3 x 14.3 lb (6.5 kg) dissolvable bags

SHELF LIFE

1 year in original, unopened package

SPECIFICATION/COMPLIANCES

ASTM C494 Type S

TECNICAL INFORMATION

pH: ~ 12.5 to 13

Specific Gravity: ~ 3.13 to 3.16 **Appearance:** Fine beige powder

DESCRIPTION

CONEX NF is a concentrated powdered admixture used for compensation and total overall reduction of net shrinkage for Portland Cement concrete. Its functional mechanism is based on the formation of an expansive component. CONEX NF is an expansive Type G component, which produces a calcium hydroxide platelet crystal system, as specified in ACI 223. CONEX NF contains no added chlorides or chemicals known to promote the corrosion of steel.

PRODUCT CHARACTERISTICS

FEATURES & BENEFITS

- Expansion characteristics of CONEX NF allow for net shrinkage reduction for concrete.
- Minimal slump loss.
- May be used in conjunction with other Euclid Chemical admixtures.
- Will not affect the mechanical strengths.
- Compatible with the majority of Portland cements.
- Minimal effect to air content, set time, or other characteristics of fresh concrete.
- Should not adversely affect freeze-thaw and salt scaling resistances given that an adequate air void system is provided.
- Expansion process is not through ettringite formation.

PRIMARY APPLICATIONS

- Flatwork concrete
- Bridge decks and Parking structures
- Interior / Exterior
- Arena / Artificial skating rinks
- Walls / Parapets / Storage tanks
- Watertight construction
- Toppings
- Piers

PRECAUTIONS/LIMITATIONS

- The use of this product requires a minimum 48 hour wet curing period, with maximum performance obtained after a 7 day curing period. For optimal moist curing efficiency, the use of curing blankets is recommended.
- As soon as the moist curing period is finished, it is recommended to use a curing compound as provided by The Euclid Chemical Company.
- Preliminary trials should be done to determine the optimum dosage and to ensure CONEX NF is well dispersed.
- CONEX NF is sensitive to humidity, free water, and to CO₂, and should be stored and handled in the same manner as
 Portland cement. Keep in perfectly sealed, original package and in a dry location.
- In all cases, consult the Safety Data Sheet before use.

TECHNICAL INFORMATION

Test Methods used to evaluate CONEX NF:

- ASTM C878
- ASTM C157 modified in accordance with Technical Bulletin AD-06
- Embedded vibrating strain gauges

For more information please contact your Euclid Technical Sales Representative.

DIRECTIONS FOR USE

- For best results, use CONEX NF in concrete with the W/C (water to cement ratio) lower than 0.60.
- CONEX NF can be used in drum mixed and central batched concrete applications.
- Adding during initial mix: CONEX NF should be added with the coarse aggregate.
- Adding directly to concrete in a ready-mix truck: concrete should have a maximum slump of 8 in (200 mm).
- Adding directly to a Self-Consolidating Concrete (SCC) mix in a ready-mix truck: concrete should have a maximum slump of 8 in (200 mm). The slump flow of the SCC mix must be adjusted with superplasticizer after a minimum of 60 seconds of mixing after the introduction of the CONEX NF.
- Concrete containing CONEX NF should be mixed a minimum of 10 minutes, at normal mixing speed, after all concrete constituents have been batched to ensure thorough dispersion of all materials.
- Concrete treated with CONEX NF may be finished and placed in the same fashion as conventional concrete.
- Typical dosage rate of 1.3-6.5% bwoc (by weight of cementitious). Before use, test in accordance with ACI 223 to determine the correct dose needed.
- The safety of the operator needs to be considered when the CONEX NF is handled.
- In all cases, preliminary testing is recommended to determine appropriate dosage and to ensure that CONEX NF is dispersed efficiently.

Rev. 07.23