

# CIKOgrout ConExtra

Smart Chemical Solutions



سيكو الشرق الأوسط  
MIDDLE EAST

## Expanding and Non-shrink grout admixture

### Description

CIKOgrout ConExtra is an admixture for non-shrink, cementitious grout used for filling gaps between similar or dissimilar substrates. CIKOgrout ConExtra is suitable for anchoring pre-cast columns, anchor bolts, fencing posts, filling cavities, voids and pre-stressing cables.

CIKOgrout ConExtra is a premium quality powder admixture when mixed with cement and filler/aggregates, results in a free-flow, high strength controlled expanding grout.

### Properties

- Single component system requiring addition of cement and filler/aggregates and water at site.
- Controlled expansion in plastic and in early hardened stage.
- High early and final strength and adherence properties.
- Low permeability and prolonged workability.
- Chloride free and will not rust or harm metal on contact.
- Frost and salt resistant.
- Non-toxic and non-flammable
- Prevents premature setting
- Reduces bleeding

### Application area

- Anchoring.
- Bridge bearing.
- Duct grouting and general void filling.
- Potable water equipment.
- Concrete structure.
- Pre-cast concrete parts.
- Rails grouting.
- Pre-stressing grouting.

### Physical properties

Form	Powder
Colour	Grey (standard)
Fresh Density	1.86±0.02 kg/L
Cone Flow Test (less than 3 mins after initial mixing)	3 to 3.5 Seconds
Expansion (%) (dosage 1 to 2 % of OPC weight)	1.2% to 3.6% at 30 mins. 0.5% to 3% at 7 hours 0.3% to 1.8% at 24 hours

### Dosage

The recommended dosage of CIKOgrout ConExtra is between 1 to 2% of OPC weight (0.5 to 1 Kg per 50kg cement bag).

### Typical mixes

OPC Kg	Wash Sand kg	Water (L)	CIKOgrout ConExtra (g)	Density [Fresh] kg/m <sup>3</sup>	Compressive Strength 28 days; N/mm <sup>2</sup>
50	---	22.5	500	1855	≥40
50	---	20	1000	1880	≥45

### Application instructions

#### Surface preparation

Clean the concrete surface to remove loose and unsound material by means of water blasting or any other means to reach sound concrete surface.

#### Formwork

Water tight formwork is made around the grouting area to required height. If used for base plate grouting, it is recommended to restrict width of the shoulders around base plate to maximum 50mm from the face of the base plate to avoid generation of expansion cracks under unrestrained conditions.

### Soaking

Prior to grouting, fill water inside the formwork and soak the concrete surface for approximately 6 hours. Just before grouting, remove water completely from the formwork, anchor bolt pockets etc. by mechanical means or using sponge so that the surface should be free from standing water.

### Mixing

When grouting contains sand as per the mix design, the sequence of mixing shall be as follow: Sand, Cement, CIKOGROUT ConExtra then the required amount of water. Mix continuously for at least 3 minutes to achieve a homogeneous mixture using a drill mixer assembled to mixing paddle or batching concrete mixer.

For Pre-Stressed grouting, use a W/C ratio between 0.4 and 0.45. The mixing sequence shall be as the following: water, cement then CIKOGROUT ConExtra. A mixing time of at least 4 minutes shall be done using a drill mixer assembled to mixing paddle or batching concrete mixer.

N.B: It is recommended to add sand to the mix design for pre-stressed concrete works.

### Placing

Place the mixed grout within 15 minutes of mixing to obtain optimum flow ability performance from using the general means of grout pumping and ensure continuous flow.

### Curing

The exposed area of grout shall be cured as per the standard curing practice or by using any curing agent from CIKOCURE wide range of products.

### Over-dosage

Marginal overdosing will increase workability and slight volume expansion. Drastic over-dosage will cause increase in expansion, set and strength retardation.

### Compatibility

CIKOGROUT ConExtra is compatible with all types of Portland cement.

### Precaution:

- Application temperature must be between 5°C - 40°C.
- Do not re-temper grout after initial mix.

### Packaging

CIKOGROUT ConExtra is packed in 5 kg & 10kg moisture resistant bags.

### Shelf life

CIKOGROUT ConExtra has a shelf life of 12 months if stored in accordance with CIKO instructions.

### Storage

CIKOGROUT ConExtra should be stored under enclosed shaded area away from direct sunlight in unopened bags at temperatures between 5°C and 45°C.

### Health & safety

Use standard dust mask to avoid inhalation of dust. Powder when wet or moist can cause burns to skin and eyes which should be protected during use. If comes in contact with skin/eyes, flush with plenty of fresh water and seek medical advice.

Refer Material Safety Data Sheet for further details.

### Technical Support

*For any technical support, do not hesitate to contact CIKO team at any time as CIKO offers on and off site services to end users, specifier and contractors.*

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