

HIGH RANGE WATER REDUCING AND SET RETARDING CONCRETE ADMIXTURE

DESCRIPTION

Conmix SP4 is a versatile product specifically designed for producing free flowing concrete in hot climates. A substantial water reducing agent for promoting early and ultimate strengths. It is based on the soluble salt of polymeric sulphonate and retardant and is a powerful deflocculent. Depending on the addition rate Conmix SP4 conforms to Type A, D and G materials of ASTM designation C494 and BSEN 934-2 1998.

USES & ADVANTAGES

Conmix SP4 may be used in concrete tunnel linings, dams, power plants, highways, ports, and other large projects where high performance concrete is required.

Advantages include:-

- Economical product for RMC companies.
- Flowable concrete for congested and large pours.
- Extension of workability.
- Improved impermeability and durability of concrete.
- Up to 25% water reduction.
- No excessive air entrainment or bleeding.
- Better surface finish.
- No adverse shrinkage.
- Increased early and ultimate strengths.
- Cement economies.
- Conmix SP4 produces superplasticised concrete by direct addition at high dosage levels. The increase in workability is such that the concrete becomes self-compacting and limited vibration is required to achieve dense, void-free concrete.
- Incorporation of Conmix SP4 into concrete aids cohesion, especially when harsh mixes are used. This is a function of the slight air-entrainment properties of the product, which is characteristic of lignosulphonic acid derivatives. Slight air entrainment also improves the surface finish of the concrete.

PROPERTIES

Appearance:	Dark brown liquid
Specific Gravity:	1.17 - 1.19
pH Value:	5.0 - 7.0
Chloride Content:	Nil
Compatibility with Cements:	

Conmix SP4 can be used with all types of Portland Cement and pozzolanic materials. For use with special cements we recommend that you consult Cormix. Conmix SP4 is compatible with P.F.A., G.G.B.F.S., and Silica Fume.

Compatibility with Other Admixtures:

Conmix SP4 should not be premixed with other admixtures. Consult Cormix when using other admixtures.

METHOD OF USE / APPLICATION

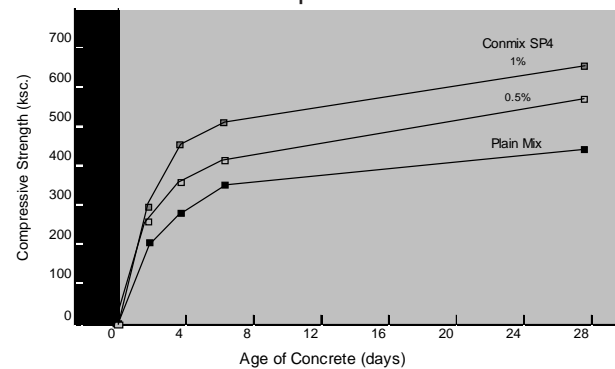
Conmix SP4 is supplied ready for use, it should be added to concrete mixes during the mixing process at the same time as the water or the aggregates. It should not be added directly to the cement.

DOSAGE

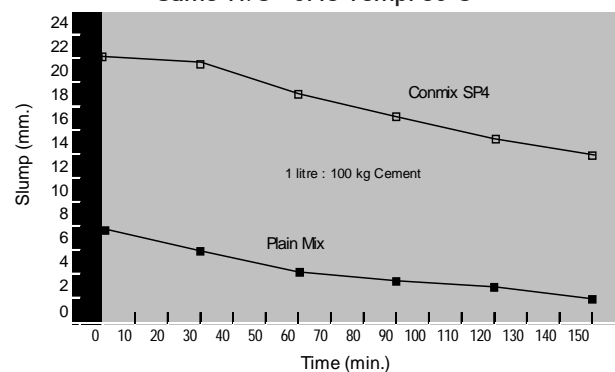
0.5 - 2.0 litre per 100 kg of total cementitious material. Exact dosage rates should be determined by trial mixes.

TYPICAL RESULTS USING CONMIX SP4

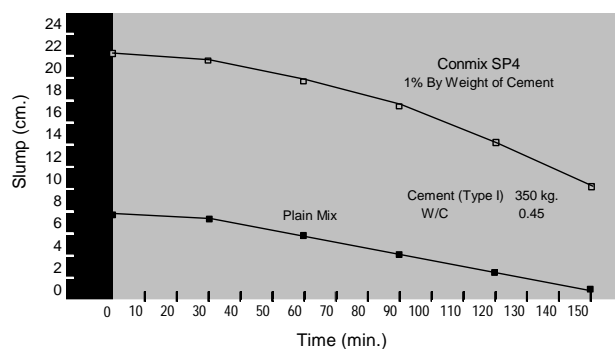
Early Strength
Temp. 30°C



Improved Workability & Slump Retention
Same W/C - 0.48 Temp. 30°C



Superplasticising Effect & Slump Retention
Same W/C = 0.45 Temp. 30°C



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EFFECTS OF OVER-DOSING

Over-dosing of Conmix SP4 will generally produce a considerable increase in workability, and in certain circumstances a slight increase in air-entrainment. Providing over dosed concrete is properly cured the ultimate strength will generally be higher than that of a normal concrete.

The effects of over-dosing are increased when sulphate resisting cement (Type V) is used in the concrete mix, because of the chemical nature of the cement compared to that of ordinary Portland Cement (Type I).

PACKAGING

Conmix SP4 is supplied in 200 litre steel drums. Alternatively bulk deliveries can be arranged.

STORAGE & SHELF LIFE

Conmix SP4 should preferably be stored protected from frost. If the product does become frozen it should be carefully mixed after thawing out, to restore it to its normal state.

Conmix SP4 can also be stored under high, ambient temperatures, without any adverse effect on its performance. The shelf life is a minimum of 1 year when unopened.

HEALTH & SAFETY

Conmix SP4 is formulated from chemicals which present no fire or health hazards.

Do not take internally. If on skin wash off with soap and water. If in eyes wash out with copious amounts of water and seek medical attention.

For further information consult Cormix International Limited.

TECHNICAL SERVICE

The Cormix International Technical Service Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

QUALITY ASSURANCE

ISO 9001 : 2008 verified by TUV Nord.

CONTACT DETAILS

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