

Cormix ® SP4

HIGH RANGE WATER REDUCING AND SET RETARDING CONCRETE ADMIXTURE

DESCRIPTION

Cormix 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 deflocculant.

Depending on the addition rate **Cormix SP4** conforms to Type A, D and G materials of ASTM designation C494 and BSEN 934-2 1998.

USES & ADVANTAGES

Cormix 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.
- Cormix SP4 produces superplasticised concrete by direct addition at high dosage levels. The increase in workability is such that the concrete becomes selfcompacting and limited vibration is required to achieve dense, void-free concrete.
- Incorporation of Cormix 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: 1.15 - 1.17 pH Value: 5.0 - 7.0 Chloride Content: Nil

Compatibility with Cements:

Cormix SP4 can be used with all types of Portland Cement and pozzolanic materials. For use with special cements we recommend that you consult Cormix.

Cormix SP4 is compatible with P.F.A., G.G.B.F.S., and Silica Fume.

Compatibility with Other Admixtures:

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

METHOD OF USE / APPLICATION

Cormix 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.

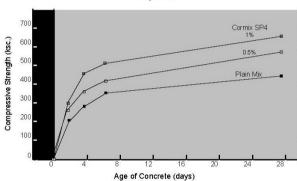
DOSAGE

0.5 - 2.0 litre per 100 kg of total cementitious material.

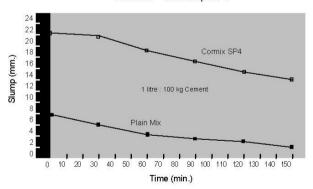
Exact dosage rates should be determined by trial mixes.

TYPICAL RESULT USING CORMIX SP4



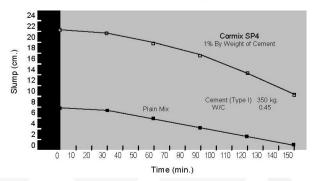


Improved Workability & Slump Retention Same W/C = 0.48 Temp. 30°C



Superplasticising Effect & Slump Retention

Same W/C = 0.45 Temp. 30°C





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EFFECTS OF OVER-DOSING

Over-dosing of **Cormix 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

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

STORAGE & SHELF LIFE

Cormix 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.

Cormix SP4 can also be stored under high, ambient temperatures, without any adverse effect on its performance. The shelf life is a minimum of 12 months when unopened.

HEALTH & SAFETY

Cormix 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 : 2015 verified by TUV Nord. ISO 14001 : 2015 verified by Lloyd's Register International.

DISCLAIMER

Performance data is achieved testing in accordance with International Standards. Testing by others may result in different results from those published as a result of external factors such as poor sampling, incorrect mixing, varying temperatures, curing, crushing procedures etc. Cormix does not take responsibility nor need to defend others testing that does not achieve the published data. The user must test the products suitability for the intended application and purpose. Cormix reserves the right to change the properties of the product. Site conditions and differences in materials are such that no warranty or fitness for a particular purpose, nor liability can be inferred from the published data sheet, written recommendations or from other advise offered.

CONTACT DETAILS

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