

POZZOLITH[®] LD20

Water-reducing, plasticiser / retarder for concrete

Description

POZZOLITH[®] LD20 is a versatile product which can be utilised to maintain workability and effect water reduction throughout a range of concrete mix designs and ambient temperature conditions. POZZOLITH[®] LD20 is a multi-role admixture capable of functioning as a water reducer to enable strength gains, whilst maintaining workability or set retardation.

Primary uses

- Hot weather concreting.
- To increase workability.
- To increase compressive strength.
- To reduce permeability.

Typical applications

POZZOLITH[®] LD20 is used wherever effective workability retention and maximum strengths are required such as:

- Hot weather concreting where controlled delays to initial set are beneficial.
- Readymix concrete where workability retention coupled with retardation of initial set are beneficial.
- In areas of congested reinforcement where high workability is of benefit.
- Above or below ground waterproofing where maximum impermeability and watertightness are essential.

Advantages

- Reduces placing problems in hot weather concreting by improving workability and workability retention.
- Increases impermeability and durability.
- Higher early and ultimate strengths.
- Effective over wide range of cement contents.
- Improves surface finish, pumpability and trowelling.

- Enables significant economies in mix designs to be achieved, thereby saving cement.

Packaging

POZZOLITH[®] LD20 is available in bulk or in 210 litre drums.

Compatibility

POZZOLITH[®] LD20 can be used with all types of Portland cement including Sulphate Resisting and modified cement (Type II). For use with special cements, contact BASF's Technical Services Department.

POZZOLITH[®] LD20 should not be mixed with other admixtures. If other admixtures are to be used in concrete containing POZZOLITH[®] LD20, they must be dispensed separately. Consult BASF's Technical Services Department for advice.

Action

POZZOLITH[®] LD20 acts efficiently on the cement particles by combining the effects of powerful plasticising and deflocculating agents. It considerably improves the workability of concrete mixes without the addition of extra water. The improved dispersal of the cement particles ensures the process of hydration proceeds under optimum conditions.

Standards

ASTM C-494: Types A, B and D
BS 5075: Part 1

Directions for use

POZZOLITH[®] LD20 should be added to the mix with the gauging water after sand, cement, and aggregate have been blended. Alternatively POZZOLITH[®] LD20 can be dispensed after the water has been added to the blended cement and aggregates.

POZZOLITH[®] LD20

Typical properties

Properties listed are only for guidance and are not a guarantee of performance

Colour:	Dark brown/black liquid
Specific gravity:	1.194 at 25°C
Air entrainment:	1-2% dependent on dosage.
Chloride content:	Nil to BS 5075
Nitrate content	Nil
Freezing point:	2°C. Can be reconstituted if stirred after leaving to thaw.
Flashpoint:	None

Dosage

The normal dosage range is 280ml to 900ml per 100kg of cement. Higher dosages may be required when certain combinations of materials and conditions are present.

In all cases we recommend trial mixes are carried out to determine the correct levels of admixture required to achieve the desired concrete properties.

Setting

POZZOLITH[®] LD20 acts efficiently to give controlled retardation of initial set. Setting times of concrete mixes are related to cement type and ambient temperature.

Effects of over dosage

A severe over dosage of POZZOLITH[®] LD20 will result in the following:

- Retardation of initial and final set.
- Slight increase in air entrainment.
- Increase in workability.

Providing it is properly cured, the ultimate strength of the concrete will not be adversely affected and will generally be higher than for normal concrete. The retarding effects of very high dosages will be exaggerated with SR cement.

Dispensing

POZZOLITH[®] LD20 should be dispensed through a proprietary dispenser, such as is available from BASF. Details available on request.

Storage

Store under cover, out of direct sunlight and protect from extremes of temperature. Shelf life is up to 2 years when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult BASF's Technical Services Department.

Safety precautions

POZZOLITH[®] LD20 is not a fire or health hazard. Spillages should be washed down immediately with cold water. For further information refer to the material safety data sheet.

Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF representative.

BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

Quality and care

All products originating from BASF's Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.

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As all BASF technical datasheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.

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