

Hydrocon ST

Cement hydration controlling admixture



Description

Hydrocon ST is a liquid admixture formulated from selected polymers specially designed to retard the setting time by controlling the hydration process of Portland cement and other cementitious materials for long time. This effect can be used to keep concrete workable for long time starting from 3 hours till three days.

Applications

- ▲ For wet type shotcrete.
- ▲ For long distance concrete delivery.
- ▲ High performance concrete.
- ▲ Concrete washwater stabilization.
- ▲ To avoid setting of concrete in transit mixers in case of accident.

Advantages

- ▲ Reduce concrete waste in case of changing concrete casting schedule.
- ▲ Excellent retardation for long time up to 3 days.
- ▲ Excellent slump retention for very long concrete deliveries.
- ▲ Saving transit mixers drums in case of accident.
- ▲ Reduce the needed amount of water to clean transit mixer.
- ▲ Chloride free.

Compatibility

Hydrocon ST can be used with all types of Portland cement and cement replacement materials. Hydrocon ST is compatible with other DCP admixtures used in the same concrete mix.

If more than one type of admixture is to be used in the concrete mix, they must be dispensed to the concrete separately.

Standards

Hydrocon ST complies with ASTM C494, Type B.

Method of Use

Hydrocon ST should be added to the concrete with the mixing water to achieve optimum performance. Also it can be added directly to the drum of concrete mixers when unplanned changes in concrete casting schedule.

Technical Properties @ 25°C:

Colour:	Yellowish liquid
Specific gravity:	1.1 ± 0.03
Chloride content: BS 5075	Nil

Dosage

The guidance dosage of Hydrocon ST is 0.1 - 3.0 litre/100 kg of cementitious materials in the mix, including GGBFS, PFA or microsilica.

Representative trials should be conducted to determine the optimum dosage of Hydrocon ST to meet the performance requirements by using the materials and conditions in actual use.

Effects of Over Dosage

Over dosing of Hydrocon ST will cause the following:

- ▲ Significant increase in retardation.
- ▲ Increase in workability.

Cleaning

Hydrocon ST can be washed with fresh cold water.

Packaging

Hydrocon ST is available in 25 litre pails, 210 litre drums and 1000 litre bulks supply.

Storage

Hydrocon ST has a shelf life of 12 months from date of manufacture if stored at temperatures between 2°C and 50°C.

If these conditions are exceeded, DCP Technical Department should be contacted for advice.

Don Construction Products Qatar W.L.L

New Industrial Area, Street 21,
Zone 81, bldg. # 9
Doha - Qatar

Hydrocon ST

Cautions

Health and Safety

Hydrocon ST is not classified as hazardous material.
Hydrocon ST should not come into contact with skin and eyes.
In case of contact with eyes wash immediately with plenty of water and seek medical advice promptly.

For further information refer to the Material Safety Data Sheet.

Fire

Hydrocon ST is nonflammable.

Testing Data

▲ Mix Design

	W	C	F.A	C.A	Admixture Dosage	Hydrocon ST
Control	180	310	765	975	0.5%	Zero
Hydrocon ST	180	310	765	975	0.5%	1.4%

▲ Result

	Slump	Air (%)	Setting Time (Hr : Min)		Compressive Strength MPa	
			Initial	Final	7 Days	28 Days
Control	14	2.4	5 : 30	7 : 35	18.0	28.9
Hydrocon ST	15	2.8	40 : 18	43 : 25	20.1	29.4

Don Construction Products Qatar W.L.L
New Industrial Area, Street 21,
Zone 81, bldg. # 9
Doha - Qatar

Note:

We endeavor to ensure that any advice, recommendation or information we may give in product literature is accurate and correct. However, due to the fact that we have no direct or continuous control over where or how the products are applied, DCP cannot accept any liability either directly or indirectly arising from the use of DCP products, whether or not in accordance with any advice, specification, recommendation or information given by us.

www.dcp-int.com

