

Adoflow R

Technical Specification



Adomast

Retarding Set Plasticiser

The inclusion of ADOFLOW-R in a concrete mix will provide similar characteristics and benefits to those provided by ADOFLOW-S Standard Setting Plasticiser. In addition to this it will also reduce the rate of hydration of the cement, to retard initial and final set, as well as reduce the peak temperature resulting from the hydration process thereby minimising the risk of cracking.

Advantages

- 1 Longer time available between mixing and placing
- 2 Avoidance of cold joints between pours
- 3 Pours of greater volume with reduced risk of cracking

Composition

A concentrated aqueous solution of modified lignin based water reducing agent containing no chlorides or nitrates.

Typical Effect of Temperature on Final Setting Time

Tests carried out on a mortar consisting of 3 parts sand to 1 part cement by weight with water/cement ratio of 0.58. Final set recorded as being equivalent to a compressive strength of 3.5 N/mm² measured by Proctor Penetrometer.

ADOFLOW-R Approx. Time to Final Set (hrs)

Per 50 Kg Cement	10°C	20°C	30°C
None	12	8.5	5
100 ml	13.5	9.5	6
250 ml	16.5	12	8
500 ml	22	18	13.5

Typical Effect on Slump and Compressive Strengths

Test carried out on concrete mixes with aggregate/cement ratio 4.7:1, water/cement ratio adjusted to give equal initial slump and initial mix temperature and curing temperature 20°C.

ADOFLOW-R	W/C ratio	Initial Slump	Approx. Time Slump Reduction to 20mm	Compressive Strength Mpa.		
Per 50 Kg cement				3 Days	7 Days	28 Days
None	0.58	65 mm	2 Hrs	16.6	27.4	42.8
140 ml	0.52	65 mm	3.5 Hrs	16.4	28.8	47.2
280 ml	0.49	65 mm	5 Hrs	16.7	31.3	52.3
560 ml	0.46	65 mm	6.5 Hrs	17.1	32.2	55.1

Note: 1 MPa. = 1N/mm² = 145 psi

It is generally found that when ADOFLOW-R is added to a concrete mix and water/cement ratio adjusted to give equal slump to the control mix, 3 day strengths are similar to those of the control mix, whilst 7 day and 28 days strengths are up to 15% and 30% greater respectively

Application

Storage

Protect from freezing. In the event of freezing, material should be completely thawed and then thoroughly mixed before use.

Shelf Life

Shelf life is minimum 3 months but could be in excess of 6 months subject to temperature and humidity.

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Adomast Adoflow R is supplied by Adomast Manufacturing Ltd and shall be applied strictly in accordance with the manufacturer's instructions. For specific advice regarding any aspect of this product, please consult our Technical Department

Health and Safety

Adomast Adoflow R is non-hazardous & not flammable

During application avoid contact with eyes and skin. In the event of eye contact irrigate immediately with copious quantities of water and then seek medical advice. In the event of skin contact, wash with soap and water.

Wear protective eyewear and gloves when handling and using.

See Safety Data Sheet for further information.