

Setting Accelerator

Resivit is a liquid admixture which is added to mortars and concrete during production in order to accelerate their setting and hardening to quickly attain increased mechanical resistance.

Uses

- To accelerate the stiffening and early strength gain of Portland cement concretes and mortars
- Typical applications for concrete or mortar placed in cold weather
- Ready-mix concrete
- Precast concrete
- Pre-stressed concrete
- Grouts

Advantages

- Particularly effective in assisting to offset the delaying effect of low temperatures on setting and strength gain
- If used in conjunction with superplasticisers the combination of early set and strength gains achieved can enable double casting in a single shift
- Accelerated setting reduces the risk of damage to fresh concrete from freezing
- Chloride free, safe for use in reinforced concrete
- The efficiency of Resivit is particularly useful where fast stripping of the moulds is required

Standards compliance

Resivit complies with BS EN 934-2, BS 5075 Part 1 and with ASTM C494 Type C.

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DoP: UK9-75	
Fosroc International Limited	
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Resivit	
Hardening Accelerating Admixture EN 934-2:T7	
Compressive Strength	Fulfilled
Air Content:	Fulfilled
Corrosion Behaviour	Contains components only from EN934-1: 2008 Annex A.2. Thiocyanates, Nitrates
Dangerous Substances	NPD
Durability	NPD

Technical support

Fosroc provides a technical advisory service for on-site assistance and advice on admixture selection, evaluation trials and dispensing equipment. Technical data and guidance can be provided for admixtures and other products for use with fresh and hardened concrete.

Properties

Resivit acts as a catalyst in the initial hydration reactions of the cement, particularly at low temperatures. The set is accelerated and mechanical resistance develops rapidly, which limits damage to fresh concrete caused by frost.

The use of Resivit does not mean that normal concrete practice when concreting in cold weather can be ignored.

Typical properties

State of product	Liquid
Colour	Amber-yellow
Specific Gravity at 20°C	1.43
pH	8 (+/- 1)
Chloride content	Nil
Solids content	51.1%
Na₂O equivalent content	< 3%
Freezing point	< -10°C

Tolerances of the SG, pH and solids content values conform to BS EN 934-2.

Typical dosage

The optimum dosage of Resivit to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. This allows the optimisation of admixture dosage and mix design and provides a complete assessment of the concrete mix.

A starting point for such trials is to use a dosage within the normal typical range of 0.50 to 3.00 litres / 100 kg of cement.

Use at other dosages

Dosages outside the typical range quoted above may be used if necessary and suitable to meet particular mix requirements, provided that adequate supervision is available. Compliance with requirements must be assessed through trial mixes. Contact the Fosroc Technical Department for advice in these cases.

Typical performance properties at 5°C

Normal C₃A cement

Dosage	Initial Set (hr:min)	Final Set (hr:min)
Nil (control)	7:00	9:10
0.5	5:20	7:40
1.0	3:40	5:40
2.0	2:30	4:15
3.0	2:05	3:10

Fosroc® Resivit

Low C₃A cement

Dosage	Initial Set (hr:min)	Final Set (hr:min)
Nil (control)	10:00	12:30
0.5	6:40	8:45
1.0	4:10	5:25
2.0	3:20	4:10
3.0	2:55	4:00

Instructions for use

Compatibility

Resivit is compatible with other Fosroc admixtures in the same concrete mix. The admixtures must be added to the concrete separately with the mixing water and must not be directly mixed together prior to addition. The performance of concrete containing more than one admixture should be assessed by trial mixes to ensure the desired combination of effects is obtained.

Resivit is suitable for use with ordinary Portland cement. Contact the Fosroc Technical Department for advice on use with sulphate resisting cements and cement replacement materials.

Durability

Resivit is chloride free and therefore can be used in steel reinforced concrete.

Dispensing

The correct quantity of Resivit should be measured by means of a recommended dispenser. The admixture should then be added to the concrete with the mixing water to obtain the best results.

Contact the Fosroc Technical Department for advice regarding dispensing suitable equipment and its installation.

Effects of overdosing

An overdose of double the intended amount of Resivit may result in increased acceleration. In common with other accelerators this may slightly reduce the ultimate strength of the concrete.

Curing

As with all structural concrete, good curing practice should be maintained. Water spray, wet hessian or a Concure* spray applied curing membrane should be used.

Estimating — packaging

Resivit is available in 20 litre drums. Bulk supply is available for larger volume users.

Storage

Resivit has a shelf life of 12 months under normal warehouse storage conditions.

Resivit is an oxidising agent and should be stored away from reducing agents and combustible materials.

Freezing point: Below -10°C.

If freezing of the product does occur it is important that it is fully reconstituted before use.

Precautions

Health and safety

For further information consult the Product Safety Data Sheet available for this product.

Fire

Resivit is water based and non-flammable but should be stored away from combustible materials.

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