

## **FEBSPEED LIQUID** **ACCELERATOR (CHLORIDE BASED)**

### **Description:**

Febspeed is a liquid that accelerates the setting time of concrete, bricklaying mortar, paving, cement renders and screeds. Febspeed complies with NZS 3113 Type AC.

### **Primary Uses:**

By reacting chemically with cement Febspeed induces faster setting and hardening. In low temperatures, even below freezing, this means work can continue.

### **Typical Applications:**

As a frost proofers:

In concrete or cement mortar when ambient temperatures fall, or are likely fall, below freezing.

As an Integral Floor Hardener:

For concrete floors, screeds and cement pavings, particularly where it is desirable to open the floor to traffic as early as possible.

As a Super-Rapid Hardener:

Added to fresh cement to be used for grouting, filling holes or plugging leaks.

### **Advantages:**

As a frost proofers:

- Promotes high strength at an early stage.
- Further increases frost resistance during setting due to heat being generated in the mix by chemical action.
- Increases density, compressive and tensile strengths and improves resistance to passage of water.

As a floor hardener:

- Improves the density of the concrete.
- Improves the floor's resistance to abrasion, oil and grease penetration and the passage of water.

### **Dosage:**

As a frost proofers:

The tables below show the recommended -4°C:

Mixing proportion to cement used	Concrete/cement mortar:	2.5 litres Febspeed per 50 kg of cement
Mixing proportion to gauging water	Concrete:	5 litres Febspeed to 40 litres mixing water
	Cement mortar:	2.5 litres Febspeed to 35 litres water
Amount of Febspeed per cubic metre of concrete/mortar	Concrete:	11.25 litres
	Cement mortar:	10 litres

Ambient Temperature below -4°C

Mixing proportion to cement used	Concrete/cement mortar	5 litres Febspeed per 50 kilo cement.
Mixing proportion to gauging water*	Concrete:	5 litres Febspeed to 20 litres mixing water
	Cement mortar	5 litres Febspeed to 32.5 litres water
Amount of Febspeed per cubic metre of concrete/mortar	Concrete	22.5 litres
	Cement mortar	20 litres

\*Note: based on commonly used mixes having a fairly high slump with approximately 100 litres of mixing water used per cubic metre of concrete (the 100 litres includes the added Febspeed).

The Febspeed should always be premixed with the checked to ensure that the correct amount of Febspeed is added according to the cement used.

Ensure that the aggregates are free from frost and cover up work as it is completed to protect it from freezing winds.

Concrete should be used immediately it is mixed and mortar should be used within 20 minutes of mixing.

**Suggested Mix Designs:**

In freezing conditions; concrete should not be weaker than 1:2:4 and should be gauged stiffly.

For bricklaying and plastering at temperatures down to – 2°C mortar gauged 1:1:6 (cement/lime/sand) or 1:6 (cement/sand) with Febmix Admix can be used. Below that temperature, the cement content should be increased to 1:1:4 (cement/lime/sand) or 1:4 (cement/sand and Febmix Admix)

In all cases, Febspeed must be premixed with the gauging water.

Febspeed is unsuitable for use with a straight lime/sand mortar which does not contain cement.

**As a Floor Hardener:**

Incorporate Febspeed with the gauging water at the rate of 2.5 litres of Febspeed per 50kg of cement used.

**Suggested Mix Design:**

The concrete should not be gauged weaker than 1:2:4.

When Febspeed is used for hardening granolithic toppings, the following specification is recommended: 2 parts 3 – 6mm granolithic chippings (no dust) to 1 part of concreting sand to 1 part cement.

Where less heavy traffic is expected 2½ parts concreting sand to 1 part cement may be used.

**As a Super Rapid Hardener:**

Add neat to fresh cement in small quantities and use immediately.

**Watch Points:**

- Calcium chloride content does not exceed 1.16% weight of cement when used at 2.5 litres per 50kg of cement.
- Do not use with High Alumina cement.
- Consult the Engineer or the appropriate NZ standard code before using in strength mixes and/or reinforced concrete – for this type of application Febexel.

**Packaging:**

Febspeed Liquid is available in 1, 2, 5, 20 and 210 litre containers.

**Storage:**

Will freeze but can be reconstituted by stirring after thawing.

**AGITATE WELL BEFORE USE.**