

EAF—Concrete Technical Specification

Super Plasticiser for Concrete and Mortar

A liquid plasticiser and water reducing agent that imparts extremely high workability when added to a concrete mix

Being a highly effective deflocculating agent, it disperses cement paste into its primary particles, significantly increasing the flow characteristics of the paste.

This permits significant reduction in water content of normal workability concrete producing higher early and ultimate strengths.

EAF—CONCRETE also enables the concrete to achieve high compaction with minimal or no tamping and its increased flow assists with difficult pours

Advantages

- Enables concrete to achieve high compaction with minimal or no vibration or tamping.
- Increases flow characteristics of concrete to assist with difficult pours.
- Permits significant reduction in water content of normal workability concrete with consequent reduction in water/cement ratio to produce higher early and ultimate strengths.

Application

The optimum addition rate of EAF—CONCRETE is best determined after preliminary trials with the actual concrete under consideration. As a guide for carrying out trials an addition rate of 0.5 litres to 1.5 litres per 100 kilos of Portland cement is recommended. Where high early and ultimate strength concrete is required, necessitating a steep reduction in water/cement ratio, the addition rate of EAF—CONCRETE may be increased up to 2.0 litres per 100 kilos Portland cement.

Mixing:

EAF—CONCRETE is best added during the mixing cycle preferably at the same time as the water. Alternatively it may be added to a normal concrete mix just prior to the pour allowing for a further mixing cycle of at least 2 minutes.

Typical Comparisons:

The following data is typical of what can be expected when comparing a concrete mix with the inclusion of EAF—CONCRETE to a control mix.

High Workability Self Compacting Concrete:

- Aggregate/Cement Ratio 5.2:1
- W/C Ratio - Control Mix 0.58
- W/C Ratio - Test Mix 0.58

EAF—CONCRETE -Test Mix 1.0 litre per 100 kg OPC:

- Slump - Control Mix 50mm
- Slump - Test Mix Collapse

Compressive Strength -Test Mix:

- 7 days: 102% of control
- 28 days: 103% of control

High Early & Ultimate Strength Concrete:

- Aggregate/Cement Ratio 5.2:1
- W/C Ratio - Control Mix 0.58
- W/C Ratio - Test Mix 0.47

EAF—CONCRETE -Test Mix 1.25 litre per 100 kg OPC

- Slump - Control Mix 50mm
- Slump - Test Mix 150mm

Compressive Strength -Test Mix:

- 1 day: 180% of control
- 7 days: 144% of control
- 28 days: 135% of control

Yield

1 Litre of EAF—CONCRETE per 100Kg of Portland Cement

Storage

Store at temperatures above freezing but not above 28°C in dry condition and under cover. Should freezing occur completely thaw material and then mix thoroughly before use.

Shelf Life

If stored in accordance to the above, In these circumstances shelf life is indefinite.

Specification

EAF—CONCRETE is supplied by Simply Precast Ltd and shall be applied in accordance with the manufacturer's instructions

Health and Safety

EAF—CONCRETE is non-hazardous in normal use. If splashes should affect the eyes bathe immediately with copious quantities of clean water and then immediately seek medical advice.