



## TuffFlow SP 695

### High Range Water Reducing Admixture for Rheoplastic Concrete

#### Description

**TuffFlow SP 695** is a high performance super plasticizer based on Sulphonated Naphthalene Derivative.

**TuffFlow SP 695** disperses and deflocculates cement particles by electro kinetic action thereby increasing the workability and flowability of concrete mix.

#### Application

- High performance concrete
- Precast pre stressed and heavily reinforced concrete.
- Flat work and mass concrete
- Low water cement ratio concrete
- Micro silica and GGBS modified concrete where durable and low permeability concrete is required

#### Features/ benefits

- **Hydration control** – Delay of slump loss and workability
- **Produces low water content and low water /cement ratio concrete** – Higher compressive strength and better durability  
Improved cohesion, minimum segregation and bleeding, better pump ability.  
Aids in concrete placement -reduces labor cost.
- **Chloride free**  
Suitable for reinforced and pre -stressed concrete

#### Standards Compliance

Complies with ASTM C-494 type -G and EN 934:2

#### Typical properties

Appearance	: Dark Brown liquid
Specific gravity @ 25 <sup>0</sup>	: 1.215
pH	: 8 – 10
Chloride content (EN-934-2)	: Chloride free
Alkali Content (EN-934-2)	: Typically less than 56.5g, Na <sub>2</sub> O equivalent / Liter of admixture.

#### Technical support

GIC provides a comprehensive technical support services to specifiers, end users and Contractors, and is able to offer on -site technical assistance.

#### Instructions for use

#### Recommended Dosages

0.75-1.5 % of cementitious materials.

For Normal concrete

1.5 to 3 % of cementitious material for high strength water reduced concrete.

Dosage will vary according to concrete property requirement and mix design.

Dosage other than recommended dosages is not uncommon, Lab and site trials are necessary to ascertain the optimum dosages for particular application.

#### Compatibility

**TuffFlow SP 695** is compatible with other GIC admixtures. All admixtures should be added to the concrete mix separately and must not be mixed together prior to addition. The resultant Properties of the concrete containing more than one admixture should be assessed by trial mixes.

**TuffFlow SP 695** is suitable for use with all types of Portland cement and cement replacement Materials Such as PFA, GGBS and Micro silica.

#### Dispensing

Should be added to the mix during mixing cycle. It can be added with the Gauging water or after all the water has been added. No extension of Normal mixing time is required.

Alternatively can be added directly to mixer truck via the feed hopper whilst at site. In this application a mixing cycle of approximately 5 minutes will be required for complete dispersion of admixture. The site





addition is recommended during hot weather concreting.

### Effects of over dosages

Over dosages, may result in increase in Workability, set retardation, increases in air content.

Provided that adequate curing is maintained the ultimate strength of the concrete will not be impaired by increased retardation.

### Curing

Fresh concrete must be cured properly, especially at high temperatures in order to prevent plastic and drying shrinkage. Recommended curing agent **TufCure WB, TufCure clear, TufCure RB**

### Packing and storage

210 liters drums, 1000 liters flow bins or Bulk. Store under cover and protect from extreme temperatures.

### Shelf life

12 months under recommended storage conditions

### Health and safety

Contains no hazardous substances however it should not be allowed to come into contact with skin and eyes .Wear suitable protective gloves and goggles whilst handling. When in contact with the skin and eyes wash thoroughly and immediately with water. If swallowed, don't induce vomiting, seek medical attention

### Important note

GIC endeavors to ensure that the technical information contained herein is true, accurate and Represents our best knowledge and experience. No warranty is given or implied as GIC has no Control over the conditions of use and the competence of any labor involved in application.

**As all GIC technical data sheets are updated on a regular basis it is the customer's responsibility to check that the product is suitable for the intended application, and that the actual conditions of use are in accordance with those recommended.**

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