

## **TRI- MIX PR 645**

### **High Range, Water-Reducing and Set Retarding Admixture for Concrete**

#### **Description**

**Tri-Mix PR 645** is a high quality super plasticizer with a set retarding effect for producing free-flowing concrete in hot climates. Also, high water reducing agent for promoting high early and ultimate strengths.



#### **Standard compliance**

- BS –EN934
- ASTM C494 ( Type G)

#### **Typical uses**

**Tri-Mix PR 645** can be used with all types of cement to achieve the following properties:

- Ready-mixed concrete.
- Long-distance transport.
- Pumped concrete.
- Casting in hot climates.

#### **Advantages**

- Improves workability without increased water.
- Delayed setting with longer workability.
- Reduced shrinkage and creep.
- Improved durability.
- produces good cohesion; risk of segregation and bleeding is minimized.
- chloride free, and safe in reinforced and pre-stressed concrete.

#### **Technical Data @°25c**

Appearance	brown liquid
Density	1.205 ±0.02 kg / L
Chloride content	NIL
Compatibility	All types of Portland cement

## Directions for use

**Tri-Mix PR 645** should be added to the mix with the gauging water (after adding 50 - 70% of water), also it can also be added to the water prior to mixing.

Never add **Tri-Mix PR 645** to dry cement.

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## Rate of use

**Tri-Mix PR 645** can be used at the dose rate (0.80 - 2.5) Liter /100 kg cement depending on requirements concerning workability and strength. It is recommended that trial mixes be conducted to determine the exact dosage rate required where the dose depend on the require application and W/C ratio type of cement, aggregates and on temperature. Workability loss is dependent on temperature, type of cement, nature of aggregates, method of transport and initial workability. It is strongly recommended that concrete should be properly cured particularly in hot and dry climates.

## Effects of overdosing :

Over dosage increases the retardation and workability, the effect level will depend on the particular Mix design and overdose level.

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## Package

- **Tri-Mix PR 645** : Drum 200 liter and 1000 liter / or as customer requirements.

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## Storage conditions

- Store the material in a cool, dry and covered place.
- Temperature should not exceed 35 °C.
- Do not expose the pails to direct sunlight and keep away from all sources of heat.
- 12 months in dry conditions at temperatures between +5 °C and +45

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## Shelf life

- Has a shelf life of 12 month stored in dry and cool place

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## Cleaning

Tools should be cleaned immediately with water after use.  
Hardened material can only be removed mechanically.

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## Sustainability and environmental accountability

• TRI-CHEM's Environmental sustainability is the accountability to conserve natural resources and protect global ecosystems to support health and well-being for this a more positive approach is that accountability guides the actions of power-holders towards more socially and environmentally sustainable results.

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## Technical support

- For any technical support, please contact TRI-CHEM technical office or representatives.

## Health and safety responsibility

- Workplace health and safety is all about sensibly managing risks to protect TRI-CHEM's workers and business.
- ISO 45001 is a systematic health and safety management is characterized by strong leadership involving managers, workers, suppliers, contractors and customers and also health and safety management is an essential part of the movement towards sustainable development.
- Spillages should be washed down immediately.
- PPE in accordance with the health and safety rules should be used during the materials application.
- For irritant effects of the non-cured material, avoid contact with skin and eyes during storage and application.

## Institutional Excellence and quality performance

- Institutional excellence in TRI-CHEM refers to achieving high levels of performance, quality and effectiveness in all aspects of TRI-CHEM company's work, it involves a systematic and continuous effort to improve an organization's performance by applying best practices, innovative approaches and evidence-based strategies, institutional excellence spans various areas, such as training , research, innovation, community engagement, governance, management and sustainability, and involves setting high standards, measuring performance against these standards and continuously improving performance to meet or exceed these standards, excellence in TRI-CHEM also includes a culture of continuous improvement and learning, where everyone in the organization is committed to achieving the organization's goals, working together to find solutions to challenges and opportunities, and requires a collaborative approach that includes all stakeholders.
- All products originating from TRI-CHEM facility are manufactured under a quality management system independently certified to conform the requirements of the quality standards ( ISO 9001:2015).

## Disclaimer

- While TRI-CHEM guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control.
  - TRI-CHEM is recommended to verify with TRI-CHEM that the product is suitable for the intended use, and that this data sheet version is the latest one.
  - TRI-CHEM may modify it without prior notice and technical characteristics are listed for guidance only.
  - Any specification, recommendation or information mentioned in this product data sheet is (to TRI-CHEM's best knowledge) true and reliable.
  - However, because TRI-CHEM has no influence on the application method of these products and the care taken, the company cannot accept any liability arising from the use of its products.
- TRI-CHEM's warranty is therefore limited to the quality of the materials supplied which are guaranteed against defective materials.

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