

Chryso® Tytro® RC430

Viscosity Modifying Admixture

Chryso
Concrete
Solutions

06/11/2025

DESCRIPTION

Chryso® Tytro® RC430 is a rheology-controlling admixture designed to accelerate cement hydration, improving early compressive strength, flexural strength, and shotcrete performance. It is ideal for concrete and shotcrete applications requiring high early strength

development and precise mix control. This product features nanometric amorphous silica technology, making it well-suited for demanding performance conditions.

Meets or exceeds the requirements of ASTM C494 Type S

ADVANTAGES

- Enhances early and long-term strength development
- Improves durability and reduces permeability
- Optimizes rheology and sprayability for superior placement
- Minimizes rebound and dust in shotcrete applications
- Accelerates cycle times with increased layer thickness

FIELDS OF APPLICATION

- All Cement Types
- Ready-Mix Concrete
- Shotcrete
- High-Performance Concrete
- Precast Concrete

Method of Use

Dosage

- Dosage rates vary based on cement type, mix design, aggregate properties, environmental conditions, and project requirements.
- The typical dosage range is:
 - Concrete Applications: 2–10 fl oz per 100 lbs (130–650 mL per 100 kg) of cementitious material.
 - Shotcrete Applications: 0.5%–1.5% by weight of total cementitious materials.
- If conditions require using more than the recommended addition rates, please consult your Chryso® representative.

Additional Usage Recommendations

- Tunneling & Mining (Shotcrete, Lining, Underground Construction)
- Repair and Rehabilitation (Overlays, Grouts, Structural Repair)

Implementation

- It is recommended that the product be added near the end of the batch sequence for optimum performance. Avoid direct contact with other admixtures during batching. Different sequencing may be used if local testing shows better performance.
- Please see [Admixture Dispenser Discharge Line Location & Sequencing for Concrete Batching Operations](#) for more information on product implementation.
- Pretesting of the concrete mix should be performed before use and as conditions and materials change in order to optimize dosage rates, addition timing, and overall performance.

Equipment

- This product can be automatically dispensed using a complete line of accurate and reliable dispensing equipment designed for seamless integration into concrete batching systems.

The information contained in this technical data sheet is given to the best of our knowledge and the result from extensive testing - which were conducted in order to remain as objective as possible. However, it cannot, in any case, be considered as a warranty involving our liability in case of misuse or any different use of our products, other than those from the "Application" paragraph of this technical data sheet. Some application tests should be carried out before using the product to ensure that the methods of use and conditions of application of the product are satisfactory. Our technical assistance is at the disposal of the users.

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Complimentary Products

- Chryso® Tytro® RC430 is compatible with most Chryso® admixtures as long as they are added separately to the concrete mix.
- For concrete that requires air entrainment, the use of an ASTM C260 air-entraining agent is recommended to provide suitable air void parameters for freeze-thaw resistance.
- Pretesting is recommended to verify compatibility with all mix components and ensure desired performance outcomes.
- Consult your Chryso® representative for guidance on product combinations and compatibility.

Performances

- Accelerates early strength development in both compressive and flexural modes
- Optimizes hydration through nanometric silica dispersion
- Regulates rheology for improved placement and spraying
- Facilitates high build thickness in shotcrete applications
- Maintains uniform particle distribution for consistent performance

CHARACTERISTICS

Product Nature	Liquid
Color	Clear
Shelf life	12 months
Cl ⁻ ions content	< 0,100 %
Specific gravity (25°C)	1,215
pH (25°C)	10,00

PRECAUTIONS

- Avoid prolonged exposure to temperatures below 35°F (2°C) or above 110°F (43°C), as extreme conditions may affect product performance.
- If the product is exposed to freezing temperatures, irreversible precipitation of the silica may occur.

SAFETY

Prior to any use, please read carefully the Safety data Sheet.

PACKAGING

- Bulk
- 1000L Tote (275 gallons)
- 210 L (55 Gallons) Drum