TYTRO® WR 171 Superplasticising admixture for shotcrete

Product Description

TYTRO[®] WR 171 is a high range water reducer commonly referred to as a superplasticiser. It is an aqueous solution of a modified naphthalene sulphonate.

TYTRO WR 171 contains no added chlorides and complies with AS 1478.1 – 2000 Type HWR. TYTRO WR 171 contains no TEA.

Dispersion

TYTRO WR 171 produces concrete with higher slumps without the need to add water. TYTRO WR 171 has superior dispersing properties that allow full cement (and pozzolanic materials) hydration at lower water-cement ratios.

Product Advantages

- TYTRO WR 171 is suitable for shotcrete with a wide range of strengths eliminating the need for other superplasticisers.
- It produces very high slump shotcrete at low water cement ratios without segregation and loss of strength.
- It can be added at the batch plant during the batching process eliminating the need for on-site addition.
- An extremely versatile superplasticiser that has a wide range of applications with superior results.

Application

TYTRO WR 171 allows shotcrete to be produced over a wide range of strengths, at low water-cement ratios with high placement slumps. TYTRO WR 171 is ideal for use in wet mix shotcrete applications to produce high early strengths.

Addition Rates

Addition rates of TYTRO WR 171 can vary depending on the application, however a typical dose range would be between 400 and 1,000mL / 100kgs total cementitious materials. Higher dose rates can be considered for advanced performance.

For best results TYTRO WR 171 should be added with the last addition of batch water. At a given water-cement ratio, the slump can be controlled by varying the addition rates. It is GCP's recommendation that trials are conducted beforehand to determine the optimum dose range to suit your application. If further assistance is required, please consult your local GCP representative.

Compatibility

TYTRO WR 171 is compatible with Portland cements including fly ash, blast furnace slag silica fume and limestone blends. TYTRO WR 171 can be used with TYTRO HE 270 to produce high quality, water-tolerant shotcretes. It is also compatible with the TYTRO range of shotcrete admixtures. All admixtures should be added to the mix separately and not premixed with other admixtures prior to addition. Please consult your local GCP representative for recommendations on compatible admixtures.

Packaging & Storage

TYTRO WR 171 is available in 1,000L totes and 205L drums. Shelf life is 12 months.

Dispensing Equipment

Please contact your local GCP representative for further information regarding the dispensing equipment for this product. or consult GCP Applied Technologies.

Health and Safety

See TYTRO WR 171 superplasticiser Material Safety Data Sheet

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