HYDRATITE® WR Liquid

Waterproof admixture for the production of low permeability concrete

Product Description

HYDRATITE® WR Liquid is a balanced aqueous mixture of highly purified dispersants and catalysts formulated for use in waterproofing all Portland cement concrete, cement mortar and cement plaster mixes. Hydratite WR Liquid contains no added chlorides. Hydratite WR Liquid complies with the requirements of the following admixture specifications: ASTM C494, Type A and D; BS 5075: Part 1: 1982; SS 320: 1987. One litre weighs approximately 1.15kg ± 0.02kg.

Applications

To produce less permeable, denser concrete with lower water content (typically 15% reduction), greater plasticity, and higher strengths at all ages, with significant benefits in the following applications:

- Water tanks, reservoirs, basements, sewage treatment plants, swimming pools, and other water containment concrete structures.
- Ready mixed concrete production.
- Pumped concrete.

Product Advantages

- Reduced permeability of concrete matrix.
- Increased compressive and flexural strengths at all ages.
- Improved workability and placing characteristics.
- Reduced bleeding, improved surface finish of concrete.
- Controlled hydration through moderate retardation of set.
- Approved for use in concrete for drinking water reservoirs.
- Effective over a wide range of cement contents and mix deigns, including PFA and Blast Furnace Slag blended mixes.
- Economical use cost.
- Extended durability.

Addition Rates

Hydratite WR Liquid can be added at between 300mL and 900mL per 100kg cementitious materials. Optimum addition rate depends on the desired performance characteristics according to project specification. The quantity of water added to the concrete must be reduced by 15% when Hydratite WR Liquid is used.

Compatibility with Other Admixtures

Hydratite WR Liquid is compatible in concrete with all commercial air-entraining admixtures such as DAREX® AEA®, and with all non-retarding type superplasticisers. Due to the air-entraining property of Hydratite WR Liquid itself, the addition rate of Darex AEA may be reduced by about 25-50% to avoid excessive air contents in the concrete. Each admixture must be added separately to the mix.

For additional information on areas of doubt, please consult your local GCP representative.

Dispensing Equipment

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

Chemical Action

Architects, engineers, concrete technologists and other authorities agree that high quality concrete with low water-cement ratio for highest strength and with good workability for easy placing and compaction will be watertight in most applications, when properly cured. However, such concrete may still absorb moisture by capillary action, and therefore, a waterproofing admixture should be used to prevent the passage of moisture.

The addition of Hydratite WR Liquid provides two main benefits in the objective of achieving reduced permeability, high quality concrete:

- Its powerful water-reducing capability permits a significant reduction in water-cement ratio without loss in consistency (slump) of the concrete, and by altering the morphology of the hydration process of the cement, Hydratite WR Liquid creates reduced pore diameter after curing.
- The carefully selected ingredients of Hydratite WR Liquid will also isolate these pores and thus provide significantly reduced permeability via capillary channels. Further more, the inclusion of Hydratite WR Liquid will permit approximately 15% water reduction and give greater plasticity and workability to the fresh concrete. The compressive and flexural strengths of the hardened concrete are measurably improved, whilst drying shrinkage is minimised. Hydratite WR Liquid will delay the normal setting time of concrete by 1 to 3 hours at normal dosage rate.

Health and Safety

See Hydratite WR Liquid Material Safety Data Sheet or consult GCP Applied Technologies.

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

Hydratite, AEA and Darex are trademarks, which may be registered in the United States and/ or other countries, of GCP Applied Technologies, Inc. This trademark list has been compiled using available published information as of the publication date and may not accurately reflect current trademark ownership or status.

© Copyright 2017 GCP Applied Technologies, Inc. All rights reserved.

GCP Applied Technologies Inc., 2325 Lakeview Parkway, Alpharetta, GA 30009, USA
GCP (Singapore) Pte. Ltd, 25 Tanjong Penjuru, Singapore 609024.
This document is only current as of the last updated date stated below and is valid only for use in Singapore. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on www.gcpat.sg. Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.

Last Updated: 2026-04-14

gcpat.sg/solutions/products/hydratite-wr-liquid