

DARAVAIR[®] 1400

Air-entraining admixture ASTM C260

Product Description

DARAVAIR[®]1400 is a liquid air-entraining admixture that provides freeze-thaw resistance, yield control and finishability performance across the full range of concrete mix designs. Daravair 1400 is a clean, light-orange product designed to generate specification-quality air systems. Based on a high-grade saponified rosin formulation, Daravair 1400 is chemically similar to vinsol-based products, but with increased purity and supply dependability. Daravair 1400 weighs approximately 8.5 lbs/gal (1.02 kg/L). Daravair 1400 does not contain intentionally added chloride.

Uses

Daravair 1400 may be used wherever the purposeful entrainment of air is required by concrete specifications. Formulated to perform across the entire spectrum of production mixes, Daravair 1400 generates quality, freeze-thaw resistant air systems in concrete conditions that include the follow

- Low slump
- Paving
- Central mix
- Extruded slip form
- Mixes containing hot water and accelerators
- Precast
- High cement factor
- Fly ash and slag
- Superplasticizers
- Manufactured sands

Product Advantages

- Rapid air build suitable for short mix cycles
- Excellent performance in paving applications

Performance

Air is incorporated into the concrete by the mechanics of mixing and stabilized into millions of discrete semi-microscopic bubbles in the presence of a specifically designed air-entraining admixture such as Daravair 1400.

These air bubbles act much like flexible ball bearings increasing the mobility, or plasticity and workability of the concrete. This can permit a reduction in mixing water with no loss of slump. Placeability is improved. Bleeding, plastic shrinkage and segregation are minimized.

Through the purposeful entrainment of air, Daravair 1400 markedly increases the durability of concrete to severe exposures particularly to freezing and thawing. It has also demonstrated a remarkable ability to impart resistance to the action of frost and de-icing salts as well as sulfate, sea and alkaline waters.

Addition Rates

There is no standard addition rate for Daravair 1400. The amount to be used will depend upon the amount of air required for job conditions, usually in the range of 4% to 8%. Typical factors which might influence the amount of air-entraining admixture required are temperature, cement, sand gradation, and the use of extra fine materials such as fly ash and microsilica. Typical Daravair 1400 addition rates range from ½ to 3 fl oz/100 lbs (30 to 200 mL/ 100 kg) of cement.

The air-entraining capacity of Daravair 1400 is usually increased when other concrete admixtures are contained in the concrete, particularly water-reducing admixtures and water-reducing retarders. This may allow up to ⅔ reduction in the amount of Daravair 1400 required.

Concrete Mix Adjustment

Entrained air will increase the volume of the concrete making it necessary to adjust the mix proportions to maintain the cement factor and yield. This may be accomplished by a reduction in water requirement and aggregate content.

Compatibility with Other Admixtures and Batch Sequencing

Daravair 1400 is compatible with most GCP admixtures as long as they are added separately to the concrete mix. In general, it is recommended that Daravair 1400 be added to the concrete mix near the beginning of the batch sequence for optimum performance, preferably by “dribbling” on the sand. Different sequencing may be used if local testing shows better performance. Please see GCP Technical Bulletin TB-0110, *Admixture Dispenser Discharge Line Location and Sequencing for Concrete Batching Operations* for further recommendations. Daravair 1400 should not be added directly to heated water.

Pretesting of the concrete mix should be performed before use, as conditions and materials change in order to assure compatibility, and to optimize dosage rates, addition times in the batch sequencing and concrete performance. Please consult your GCP Applied Technologies representative for guidance.

Packaging & Handling

Daravair 1400 is available in bulk, delivered by metered tank trucks, totes and drums.

Daravair 1400 will freeze at about 30 °F (-1 °C) but its airentraining properties are completely restored by thawing and thorough mechanical agitation.

Dispensing Equipment

A complete line of accurate automatic dispensing equipment is available. These dispensers can be located to discharge into the water line, the mixer, or on the sand.

Specifications

Concrete shall be air entrained concrete, containing 4 to 8% entrained air. The air contents in the concrete shall be determined by the pressure method (ASTM Designation C231) or volumetric method (ASTM Designation C173). The air-entraining admixture shall be a completely neutralized rosin solution, such as Daravair 1400, as manufactured by GCP Applied Technologies, or equal, and comply with *Standard Specification for Air-Entraining Admixtures* (ASTM Designation C260). The air-entraining admixture shall be added at the concrete mixer or batching plant at approximately ½ to 3 fl oz/100 lbs (30 to 200 mL/100 kg) of cement, or in such quantities as to give the specified air contents.

gcpat.it | Servizio clienti in Italia:: +39 02 93537291

Confidiamo che le informazioni date con la presente siano utili. Sono basate su dati e conoscenze che riteniamo vere ed accurate e sono messe a disposizione dell'utente perché li consideri, facendo le opportune verifiche. Tali informazioni non rientrano nei nostri obblighi quali fornitori e per esse nessun compenso, esplicito o implicito, viene richiesto e/o viene dato. Anche per questo non assumiamo alcuna responsabilità per l'uso di tali informazioni e per i risultati che possono essere ottenuti. Nessuna informazione, raccomandazione o suggerimento può essere intesa ad un impiego in un processo che violi qualsiasi brevetto, copyright o diritto di terzi.

DARAVAIR sono marchi registrati della GCP Applied Technologies Inc in USA o in altri stati. Questa lista di marchi registrati è stata composta usando le informazioni disponibili alla data di pubblicazione e potrebbero non riflettere accuratamente la proprietà o lo status di essi.

© Copyright 2017 GCP Applied Technologies Inc. Tutti i diritti riservati.

GCP Applied Technologies Inc., 2325 Lakeview Parkway, Alpharetta, GA 30009, USA

GCP Italiana S.p.A. - Via Trento, 7 - 20017 Passirana di Rho, Milano, Italy

Questo documento è aggiornato solo a partire dalla data dell'ultimo indicato di seguito ed è valido solo per l'uso in Italia. È importante consultare sempre le informazioni attualmente disponibili sull'URL di seguito per avere le informazioni sul prodotto più recenti al momento dell'uso. Documenti aggiuntivi come i manuali di utilizzo, bollettini tecnici, disegni dettagliati e raccomandazioni dettagliate e altri documenti rilevanti sono disponibili anche su www.gcpat.fr. Le informazioni trovate su altri siti web non dovrebbero essere utilizzati, in quanto potrebbero non essere aggiornati o applicabili alle condizioni del tuo paese e non ci assumiamo alcuna responsabilità quanto al loro contenuto. In caso di conflitti o se hai bisogno di ulteriori informazioni, contatta il servizio clienti di GCP.

Last Updated: 2022-11-24

gcpat.it/solutions/products/daravair-1400