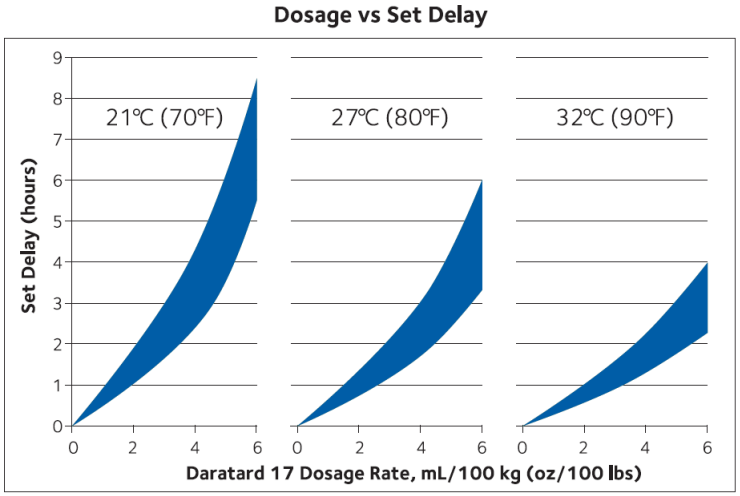
TB-0502 — DARATARD® 17 Technical Bulletin

Performance Guide

Concrete sets as a result of a chemical reaction (hydration) between the Portland cement and water in a mixture. DARATARD® 17, a water-reducing and retarding admixture, temporarily suppresses the hydration reaction and set times are delayed. By adjusting DARATARD® 17 dosage rates, a concrete producer can customize the setting characteristics of the concrete to meet the job requirements.

The ability to control set times is of particular importance when placing concrete in hot weather. The setting time of concrete in hot weather becomes shorter as the temperature increases. As a general rule of thumb, for every 11 °C (20 °F) rise in concrete temperature the setting time is halved. DARATARD® 17 offsets the accelerating effects of the high temperatures and extends the time period available for the transfer, placement and finishing operations.

The chart below is provided as a guide to help a concrete producer select the DARATARD® 17 dosage rates that meet the set requirements of the job. The data are shown in the form of broad bands to account for DARATARD® 17's range of performance with a variety of cements. The performance chart is intended as a guideline to help the producer establish an initial DARATARD® 17 dosage rate. Once the initial dosage rate is established, performance must be verified in tests conducted under job conditions using concrete ingredients specified for the job.



GCP Applied Technologies Inc., 2325 Lakeview Parkway, Suite 475, Alpharetta, GA 30009, USA

GCP Canada, Inc., 294 Clements Road, West, Ajax, Ontario, Canada L1S 3C6

Last Updated: 2024-06-21
gcpat.com/solutions/products/daratard-set-retarder/tb-0502-daratard-17-technical-bulletin