

Shrinkage Reducing Concrete Admixture

Shrinkage cracking is one of the most prevalent problems faced in concrete construction today. To meet this problem, Grace Construction Products has developed Eclipse™ to reduce drying shrinkage in concrete. Grace collaborated with a team of scientists and chemical engineers from ARCO Chemical Company and with researchers at Northwestern University. The Eclipse™ product is recommended for high performance industrial floors, bridge decks, parking garages, highways, marine structures, hydraulic structures, primary and secondary containment structures and water treatment facilities.

Eclipse™ is a liquid admixture that is available to ready-mix producers and contractors for chemically altering the basic mechanism of concrete shrinkage. It is a low volatility chemical which is easily dissolved in the concrete's mix water or dispersed in the concrete during mixing. It has virtually no effect on the handling or placing of the concrete. After the concrete has hardened, Eclipse™ remains in the pore system where it acts to control surface tension effects that lead to drying shrinkage. Eclipse™ has demonstrated an ability to reduce shrinkage in 28-day concrete by 50% to 80%, thereby reducing cracking when the concrete is weakest and most vulnerable. Eclipse™ also significantly reduces ultimate shrinkage, and has been proven to reduce curling in 28-day concrete. By reducing cracking, Eclipse™ allows concrete to perform as designed, to extend its life-cycle, and to lower its maintenance. Eclipse™ also reduces the potential for corrosion of reinforcing steel in chloride-laden environments, and may alter joint spacing in highways and similar structures.

Contact:	Bret Simpson
Organization:	Grace Construction Products
Address:	62 Whittemore Avenue
City:	Cambridge
State/Province:	MA
Postal Code:	02140
Country:	USA
Phone No:	617-498-4538
FAX:	
URL:	http://www.gcp-grace.com
Email:	bret.t.simpson@grace.com