

EXP 950

High-range water-reducing admixture ASTM C494 Type A and F and ASTM C1017 Type I

Product Description

EXP 950 is a high efficiency, low addition rate polycarboxylate-based high-range water reducer designed for the production of a wide range of concrete mixes, from conventional to Self-Consolidating Concrete. It is designed to impart extreme workability without segregation to the concrete.

EXP 950 is supplied as a ready-to-use liquid that weighs approximately 8.9 lbs/gal (1.1 kg/L). EXP 950 does not contain intentionally added chlorides.

Uses

EXP 950 is a superplasticizer that is formulated to impart improved workability to the concrete and to achieve high early compressive strength. EXP 950 may also be used for the production of Self-Consolidating Concrete (SCC).

EXP 950 may be used to produce concrete with very low water/ cementitious ratios while maintaining normal levels of workability.

Addition Rates

EXP 950 is an easy to dispense liquid admixture. Dosage rates can be adjusted to meet a wide spectrum of concrete performance requirements. Addition rates for EXP 950 can vary from 2 to 10 fl oz /100 lbs (130 to 650 mL/100 kg) with the type of application, but will typically range from 3 to 6 fl oz/100 lbs (200 to 390 mL /100 kg) of cementitious. Should conditions require using more than the recommended addition rate, please consult your GCP representative.

Mix proportions, cementitious content, aggregate gradations and ambient conditions will affect EXP 950 dosage requirements. If materials or conditions require using more than the recommended addition rates, or when developing mix designs for Self-Consolidating Concrete please consult your GCP Applied Technologies representative for more information and assistance.

Product Advantages

- Produces concrete with high levels of workability without segregation
- Provides significantly higher strengths and normal set time
- Excellent concrete rheology and handling properties
- Provides improved finishability and surface finishes
- Superior air entrainment control
- Provides standard water reduction at normal addition rates and significant water reduction at higher addition rates

Compatibility with Other Admixtures and Batch Sequencing

EXP 950 is compatible with most GCP admixtures as long as they are added separately to the concrete mix. However, EXP 950 is not recommended for use in concrete containing naphthalenebased admixtures including DARACEM[®]19 and Daracem 100, and melamine-based admixtures including Daracem 65. In general, it is recommended that EXP 950 be added to the concrete mix near the end of the batch sequence for optimum performance. 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.

Pretesting of the concrete mix should be performed before use as conditions and materials change in order to assure compatibility with other admixtures, and to optimize dosage rates, addition times in the batch sequencing and concrete performance. For concrete that requires air entrainment, the use of an ASTM C260 air-entraining agent (such as DARAVAIR[®] or DAREX[®] product lines) is recommended to provide suitable air void parameters for freeze-thaw resistance. Please consult your GCP Applied Technologies representative for guidance.

Packaging & Handling

EXP 950 is a yellowish brown liquid available in bulk, delivered by metered trucks, in totes and drums.

EXP 950 will freeze at approximately 32 °F (0 °C) but will return to full functionality after thawing and thorough mechanical agitation.

Dispensing Equipment

A complete line of accurate, automatic dispensing equipment is available.

EXP 950 ASTM C494 Type F High-Range Water Reducer Test Data

U.S. Units

	CONTROL	EXP 950
Cement (pcy) (kg/m ³)	517	517
Coarse aggregate (pcy) (kg/m ³)	1944	1944
Fine aggregate (pcy) (kg/m ³)	1144	1214
Water (pcy) (kg/m ³)	248	211
w/cm	0.48	0.41
Slump (inches) (mm)	3.5	3.25
Plastic air (%)	5.4	5.5
Compressive strength		
1 day (psi) (MPa)	1460	2050
7 day (psi) (MPa)	4380	6040
28 day (psi) (MPa)	5570	7270
Initial set time (hr:min)	4:56	3:57
Length change 28 day (%)	-0.027	-0.029
Freeze-thaw resistance (RDME %)	97	95

Metric Units

	CONTROL	EXP 950
Cement (pcy) (kg/m ³)	307	307
Coarse aggregate (pcy) (kg/m ³)	1153	1153
Fine aggregate (pcy) (kg/m ³)	679	720
Water (pcy) (kg/m ³)	147	125
w/cm	0.48	0.41
Slump (inches) (mm)	89	83
Plastic air (%)	5.4	5.5
Compressive strength		
1 day (psi) (MPa)	10.1	14.1
7 day (psi) (MPa)	30.2	41.6
28 day (psi) (MPa)	38.4	50.1
Initial set time (hr:min)	4:56	3:57



Length change 28 day (%)	-0.027	-0.029
Freeze-thaw resistance (RDME %)	97	95

ca.gcpat.com | North America customer service: 1-877-4AD-MIX (1-877-423-6491)

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.

© Copyright 2018 GCP Applied Technologies Inc. All rights reserved.

GCP Applied Technologies Inc., 2325 Lakeview Parkway, Suite 450, Alpharetta, GA 30009, USA
GCP Canada, Inc., 294 Clements Road, West, Ajax, Ontario, Canada L1S 3C6.

This document is only current as of the last updated date stated below and is valid only for use in the Canada. 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.com. 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.