

RUSSTECH[®]

LC-400CL

WATER-REDUCING ADMIXTURE FOR CONCRETE

DESCRIPTION:

LC-400CL is a normal setting multi-component admixture that interblends with Portland cement. It increases the cohesive power of hardened concrete by maximizing the cement particles ability to hydrate throughout the mortar matrix. The chemical reaction that occurs between **LC-400CL** and Portland cement results in improved strength, durability, finishability and overall appearance.

ADVANTAGES:

- Improves the quality of concrete by decreasing water-cement ratio
- Reduces water requirements of concrete by up to 12 percent
- Increases compressive and flexural strength
- Reduces cracking and shrinkage
- Reduces surface bleeding
- Provides superior finishability on all flatwork and pre-cast surfaces
- Improves workability and finishability
- Improves formed surfaces while reducing segregation
- Improves pumpability of concrete
- Accelerates set time and early strength gain; more than conventional water reducers
- Increases relative durability-resists damage caused by freezing and thawing

DOSAGE RATE:

LC-400CL is recommended for use at a dosage rate of 3 to 5 fluid ounces per 100 pounds (196 to 326 mL per 100 kg) of cement.

Because local job conditions vary, contact your local RussTech technical sales representative for further assistance if using outside recommended dosage ranges.

SPECIFICATIONS:

Conforms to: ASTM C 494 Type A
AASHTO M 194 Type A
CRD C 87 Type A

MIX PERFORMANCE DATA:

Straight Cement

517 lbs. (307 kg) of Type I cement per cubic yard (cubic meter)
Slump 3.0 inches (76 mm)
Ambient Temperature 65 F (18 C)
Concrete Temperature 62 F (17 C)

Time of Set:

LC-400CL at 4 ounces per 100 pounds
(261 mL per 100 kg) cement

	Initial Set <u>Hours: Minutes</u>	Final Set <u>Hours: Minutes</u>
Plain	5:40	7:30
LC-400CL	5:10	6:50

Compressive Strength:

LC-400CL at 4 ounces per 100 pounds
(261 mL per 100 kg) cement

Mix	7 day		28 Day	
	<u>psi</u>	<u>MPa</u>	<u>psi</u>	<u>MPa</u>
Plain	4230	29.2	5420	37.4
LC-400CL	5370	37.0	6610	45.6

Cement with Fly Ash

350 lbs.(208 kg) of Type I cement per cubic yard (cubic meter) and 100 lbs. (59 kg) per cubic yard (cubic meter) of Class F fly ash
Slump 5.0 inches (127 mm)
Ambient Temperature 68 F (20 C)
Concrete Temperature 64 F (17.8 C)

Time of Set:

LC-400CL at 4 ounces per 100 pounds
(261 mL per 100 kg) cementitious

	Initial Set <u>Hours: Minutes</u>	Final Set <u>Hours: Minutes</u>
Plain	6:10	8:10
LC-400CL	5:40	7:35

Compressive Strength:

LC-400CL at 4 ounces per 100 pounds
(261 mL per 100 kg) cement and fly ash

Mix	7 day		28 Day	
	<u>psi</u>	<u>MPa</u>	<u>psi</u>	<u>MPa</u>
Plain	2890	19.9	4130	28.5
LC-400CL	3820	26.3	4960	34.2

TECHNICAL NOTE:

LC-400CL contains intentionally added calcium chloride. When specifications limit the use of **LC-400CL**, RussTech can provide non-chloride water-reducing admixtures such as **LC-400P** and **LC-500**.

STORAGE:

LC-400CL may freeze at temperatures below 20 F (-7 C). Although freezing does not harm **LC-400CL**, precautions should be taken to protect it from freezing. If it should happen to freeze, thaw and reconstitute with mechanical agitation. **Do Not Use Pressurized Air For Agitation.**

COMPATIBILITY:

LC-400CL is compatible with all types of Portland cement, class C and F fly ash, silica fume, calcium chloride, fibers and approved air entraining, accelerating, retarding, and superplasticizing admixtures. **LC-400CL** can be used in white, colored, and architectural concrete. For best results, each admixture must be dispensed separately into the concrete mix.

PACKAGING:

55-gallon drums, 275-gallon tote tanks, and bulk tank truck.

SHELF LIFE:

18 months

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