

## LCNC- 166

### **NON-CHLORIDE ACCELERATING WATER-REDUCING ADMIXTURE FOR CONCRETE**

#### **DESCRIPTION:**

**LCNC-166** is a multi-component, chloride-free, water-reducing accelerator for concrete. It promotes higher early and ultimate strengths; especially in concrete exposed to temperatures below freezing. Concrete placed in colder weather with **LCNC-166** is able to maintain normal set times without the introduction of chloride-bearing components.

#### **USES:**

- Can be used year round for higher and earlier strength gain
- Concrete subject to chloride ion constraints
- Concrete bridge decks and prestressed concrete repair
- Concrete subject to ambient temperatures as low as 20 F (-7 C)
- Prestressed concrete and concrete over metal decking and roof systems
- Pre-cast, site cast, and all other steel reinforced concrete

#### **ADVANTAGES:**

- Aids in prevention of concrete from freezing at higher dosages
- Increases rate at which heat is generated during hydration- promotes earlier setting, finishing, and strength gain
- Earlier use of structural concrete
- Faster stripping and reuse of forms
- Improves cohesiveness and plasticity which aids in avoiding honeycombing
- Increases early and ultimate compressive and flexural strengths
- Provides earlier finishing of slabs
- Provides superior finishability on all flatwork and pre-cast surfaces
- Reduces protection time required in cold weather

#### **SPECIFICATIONS:**

Conforms to ASTM C 494 Types C and E  
AASHTO M 194 Types C and E  
CRD C 87 Types C and E  
All other Federal and State specifications

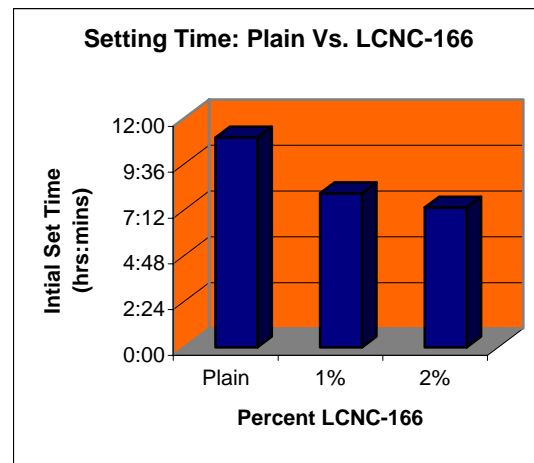
#### **MIX PERFORMANCE DATA:**

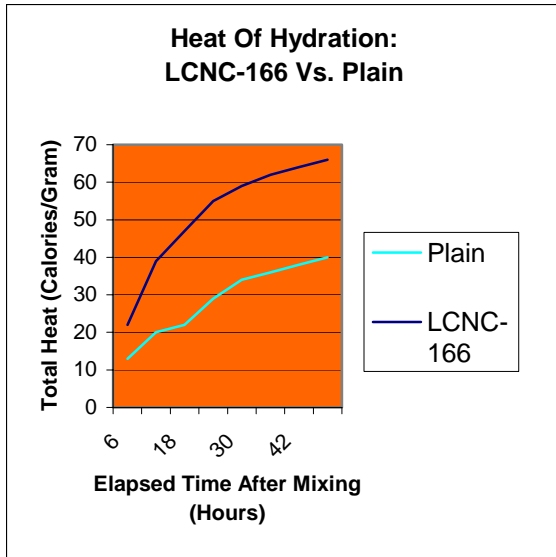
517 lbs. (307 kg) of Type I cement per cubic yard (cubic meter) Slump 5.5 inches (140 mm)  
Ambient Temperature 50 F (10 C)  
Concrete Temperature 50 F (10 C)  
Concrete field cured at 44 F (6.7 C) to 60 F (15.6 C) during whole 28 day cycle.

#### **Compressive Strength:**

**LCNC-166** at 54 ounces per 100 pounds (3521 mL per 100 kg) cement

<b>Mix Age</b>	<b>Plain</b>		<b>LCNC-166</b>	
	<b>psi</b>	<b>MPa</b>	<b>psi</b>	<b>MPa</b>
1 Day	640	4.4	1210	8.3
3 Day	1510	10.4	2470	17.0
7 Day	2490	17.2	3580	24.7
28 Day	4130	28.5	5265	36.3



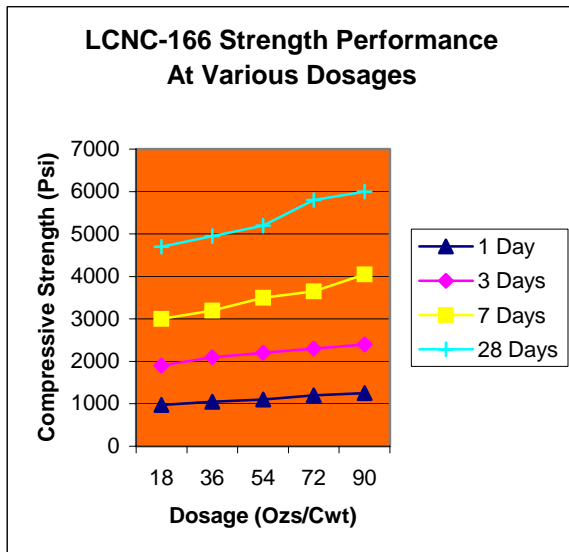


### TECHNICAL NOTE:

**LCNC-166** does not contain calcium chloride or any chloride-based components. **LCNC-166** will not initiate or promote the corrosion of steel in concrete used with:

- Galvanized steel flooring or roofing systems left for permanent construction
- Rebar, wire mesh or metal fibers
- Pre-cast, site cast, and prestressed steel reinforcement
- Steel cable in both pre-tensioned and post-tensioned applications

For sub-freezing concrete placements consult with your local RussTech technical service representative for dosage requirements of **LCNC-166** for freeze-resistant concrete.



### DOSAGE RATE:

**LCNC-166** is recommended for use at a dosage rate of 8 to 90 fluid ounces per 100 pounds (522 to 5870 mL per 100kg) of cementitious.

### PACKAGING:

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

### STORAGE:

**LCNC-166** may freeze at temperatures below 5 F (-15 C) Although freezing does not harm **LCNC-166**, 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:

**LCNC-166** is compatible with all types of portland cement, class C and F fly ash, silica fume, fibers, all approved air entraining, accelerating, superplasticizing, and water-reducing admixtures. For best results, each admixture must be added separately to the concrete mix.

### SHELF LIFE:

18 months

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