

# COLD WEATHER CONCRETE PROCEDURES



## BASIC PROCEDURES:

1. Do not place concrete on freezing sub-grade.
2. Keep steel reinforcement above freezing temperature.
3. Increase the amount of cement in the mix to achieve earlier strength gain.
4. Use as much accelerating admixture as can be handled to reduce set time and bleeding.
5. Place concrete at a reasonable slump. Do not finish surface while bleed water is still evident.
6. Cover surface with insulating blankets as soon as possible after finishing. Be aware that edges of concrete are most susceptible to freezing.
7. Do not remove blankets once they have been placed. You will lose concrete temperature, which is necessary for strength gain. You could also cause thermal shock and cracking.
8. Liquid membrane curing/sealing compound is not required for cold weather concrete. If job specs call for a curing compound, it must be placed immediately after finishing before blankets go on. Only use a breathable curing compound that will let water vapor still escape from the concrete, so freezing does not occur.
9. Leave insulated blankets on the concrete for approximately seven days.
10. If a sealer is required, it should be applied at a later date after concrete is fully cured. Temperature should typically be above 50°F.



## FREEZE RESISTANT CONCRETE ADMIXTURE INFORMATION:

1. Use only when ambient temperature is 20°F and rising.
2. Concrete should be a 6.5 bag 4,500 PSI mix design as a minimum.
3. Concrete should be air entrained.
4. Insulating the concrete is not necessary to protect from early freeze damage.
5. Concrete should be cured for continued strength gain after initial set.
6. Do not place concrete on frost or frozen sub-grade.
7. Do not allow external water or precipitation to enter the concrete during placing or finishing.
8. Refer to ACI 306 for complete guide to cold weather concrete practices.

IN PARTNERSHIP WITH



**CARBON  
CURE**

Recycling CO<sub>2</sub> to Make  
Simply Better Concrete.

## REDUCING CARBON, ONE TRUCK AT A TIME

We partnered with CarbonCure to help improve operations while reducing our carbon footprint. CarbonCure manufactures a technology that introduces recycled CO<sub>2</sub> into fresh concrete to reduce the carbon footprint without making any compromises.



Smith Ready Mix, Inc. has been serving Northwest Indiana's ready mix concrete needs since 1949. Our INDOT-approved locations are conveniently located to supply customers throughout Northern Indiana, Southwest Michigan, and the South Suburbs of Chicago.

ILLINOIS

Lake  
Michigan

MICHIGAN

INDIANA



## SERVICE AREA

Smith Ready Mix, Inc. has proudly served the contractors of Northwest Indiana, Southwest Michigan, and the Chicagoland area since 1949. With 12 INDOT-approved locations throughout our service area, we are equipped to supply you with the products you need for any size job all year long.

- |              |                |                |              |
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## CONTRACTORS: Request An Estimate

Looking to price out your latest project? Let's get started!

We understand that, as a contractor, you are juggling bids for many projects at one time. That's why we make the quote process as easy as possible. The level of expertise each of the team members brings is a catalyst for a seamless process.

The professionals at Smith Ready Mix, Inc. work with contractors to meet their concrete needs. We offer a variety of materials for your commercial, industrial, infrastructure, residential, or designer concrete jobs.



### MAIN OFFICE

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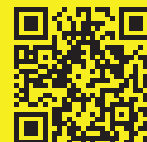
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