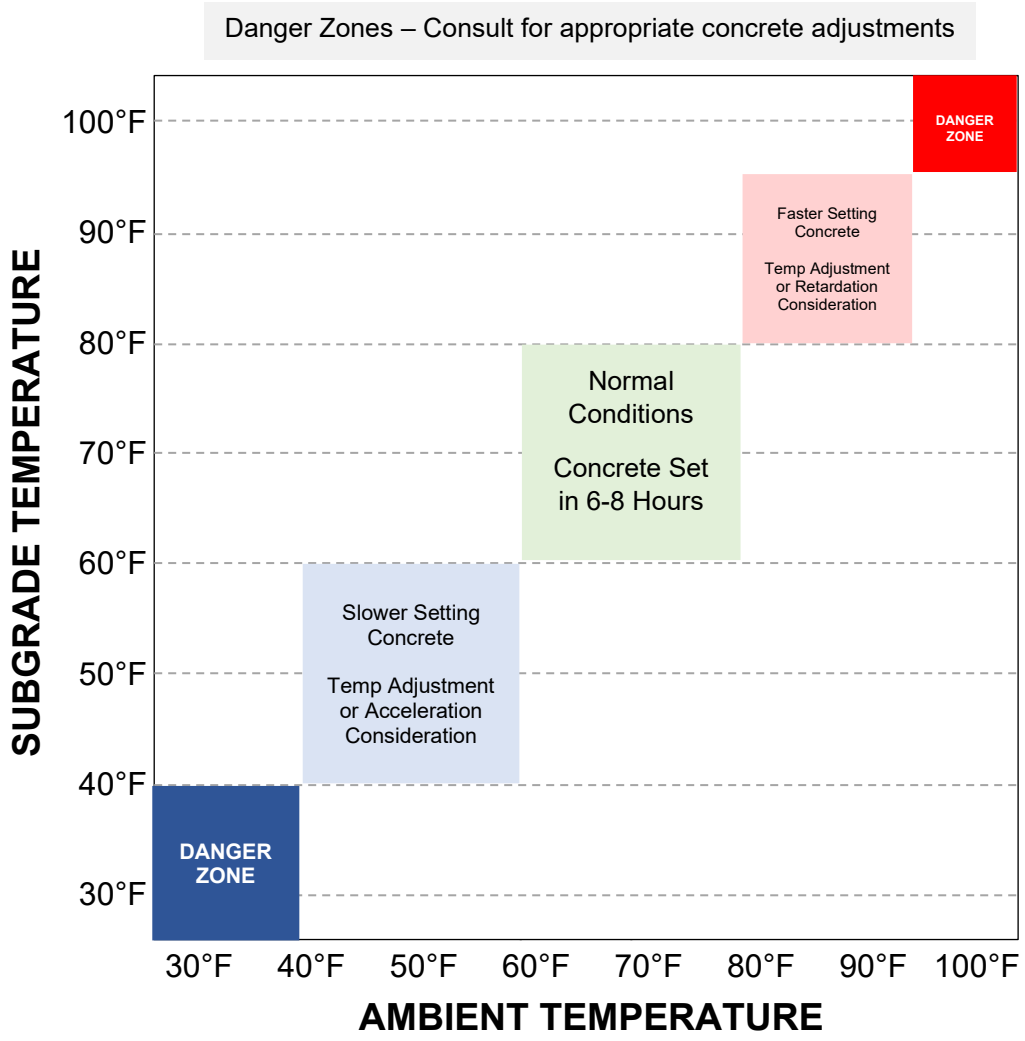
NORWALK READY MIX CONCRETE INC.

COLD WEATHER CONCRETE

Did you know?

- Adding 1 or 2 gallons of water per yard can delay set times up to 2 hours. Order the slump that is easiest to place and avoid adding water to trucks
- Placing warm concrete on cold subgrades can cause slower than expected set times. Know your subgrade temperature
- When the concrete temperature is more than 10°F cooler or 5°F warmer than the subgrade, differential rates of setting may cause plastic shrinkage cracking. Use Polychem Super Set Plus products to reduce the potential for early age cracking
- The minimum concrete temperature as placed and maintained for concrete slabs less than12” is 55°F. For walls 12”-36” the temperature is 50°F. If raising the temperature of the concrete isn’t possible, use Polychem Super Set Plus accelerator
- Significant strength reductions can occur if concrete is frozen within a few hours after placement or before it attains compressive strength of 500 psi. Newly placed concrete that is saturated should be protected from freezing until it reaches 3500 psi
- Special care should be taken with test specimens used for acceptance of concrete. Cylinders should be stored in insulated boxes



Cold weather concreting difficulties are chiefly caused by low ambient temperatures and by not protecting concrete from freezing.

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ACCELERATOR DOSAGE GUIDE

Recommended Accelerator Dosage Guideline

Air Temperature (°F)	<32°	32°	35°	40°	45°	50°	55°
Recommended Dosage %	Not Recommended	3%	2.5%	2%	1.5%	1%	0.5%

Variations in job conditions, concrete materials, mix designs, and climate may require Polychem Super Set dosage rates other than the recommended amounts as shown. Consult your ready mixed concrete producer

American Concrete Institute (ACI) Section 306 defines “cold weather” concreting as a period when low temperature conditions exist and slow down the hydration process, significantly retarding concrete setting time, resulting in reduced compressive strength at early ages and increased strength at later ages.

Estimated Acceleration Times

0.5%	30 minutes
1%	1 hour
1.5%	1.5 hours
2%	2 hours
2.5%	2.25 hours
3%	2.5 hours