

Cold Weather Concrete: Be alert for problems creeping in

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A few signs that you may not be curing enough overnight:

- Condensation forms on the top of your pieces overnight and works its way between the form and your piece causing discoloring.
- Warping shows up.
- Polished pieces suddenly cut very easy and don't seem to take a polish.
- You break a piece

Remember the concrete curing curve is shaped like a hockey stick – get your pieces above 100 degrees or so and strength gain takes off. Let them idle along at 60 degrees and you won't gain enough strength to strip the next day without problems.

Solutions:

- Use external heat: Cover your pieces with plastic then electric heating blankets (Walmart home type blankets are adequate), then an insulated blanket on top. It's a lot less expensive than heating your shop.
- Use accelerator: Trinic Stage II Accelerator / Hardener dosed at 1% to 3% of the cementitious weight can double overnight strength gains eliminating a lot of problems. It is also useful in hurrying along facecoats (so you can get a backcoat on them) in a cold shop. A 1% dosage in a 60 degree shop will roughly half the waiting time.
- Use a combination of both as needed.