

Florida Concrete & Products Association Technical Bulletin

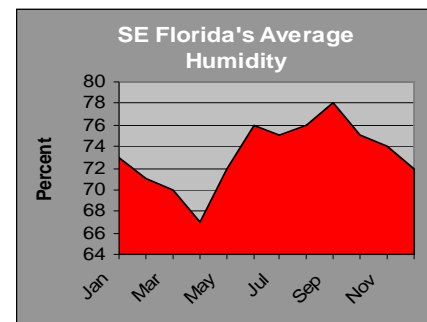
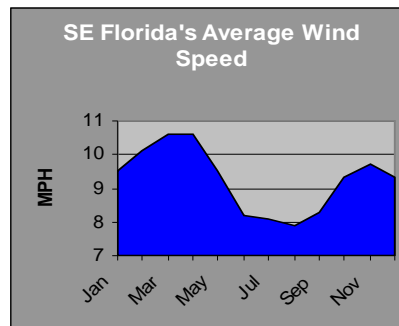
Controlling Plastic-Shrinkage Cracking in Residential Slabs

Dec. 2008

During Winter in Florida, more cracks occur than any other season due to high winds and low humidity.

When **high winds and /or low humidity** are present during concrete placement—beware of cracking potential! Plastic-shrinkage cracking nearly always results from the rapid loss of moisture from concrete. This sudden volume change is commonly not factored during placement.

These charts show the average wind speed and humidity in Southeast Florida. Note that the wind is highest in March and April and humidity is lowest. Placing concrete this time of year requires additional precautions due to these extreme adverse conditions.



Recommendations to control unwanted cracking:

- Use a certified ACI Flatwork Finisher.
- Initiate proper curing methods immediately.
- Prevent the addition of excessive water.
- Use high-range water-reducing admixtures.
- Saw cut slabs during the same day.
- Incorporate control joints at all re-entry corners.
- Two - #3 Reinforced bars may be used at re-entry corners 2" below surface.
- Use polypropylene fibers to reduce plastic settlement and shrinkage cracking .
- Consider wind breaks, fogging, and/or shading to guard slabs during initial set.
- Consult your ready-mixed representative or contact the Florida Concrete & Products Association for more information.

Max Joint Spacing

Slab Thickness (in.)	Spacing (ft)
4	10
5	12
6	15



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