

Hot Weather Concrete

When precautions are needed

Take hot weather precautions when concrete temperature is 77° F or greater. If the concrete temperature is 95° F or greater the impacts will be more extreme, therefore, hot weather precautions are more critical. Only use mixes with known satisfactory performance at temperature above 95° F .

Impacts of Increased Temperature

- More water needed to achieve the same strength resulting in lower strength and higher crack potential.
- Accelerated slump loss leading to increased water additions. Refer to the Water Addition Card.
- Faster set time leading to less time for delivery and finishing. A temperature increase of 20° F may result in the concrete setting twice as fast.
- Higher early strengths but lower strengths at 28 days than the same concrete produced at a lower temperature.
- Increased potential for drying and thermal cracks.
- Increased potential for plastic shrinkage cracks particularly during periods of low humidity, higher ambient temperatures and windy conditions.

Solutions to Minimize Impacts

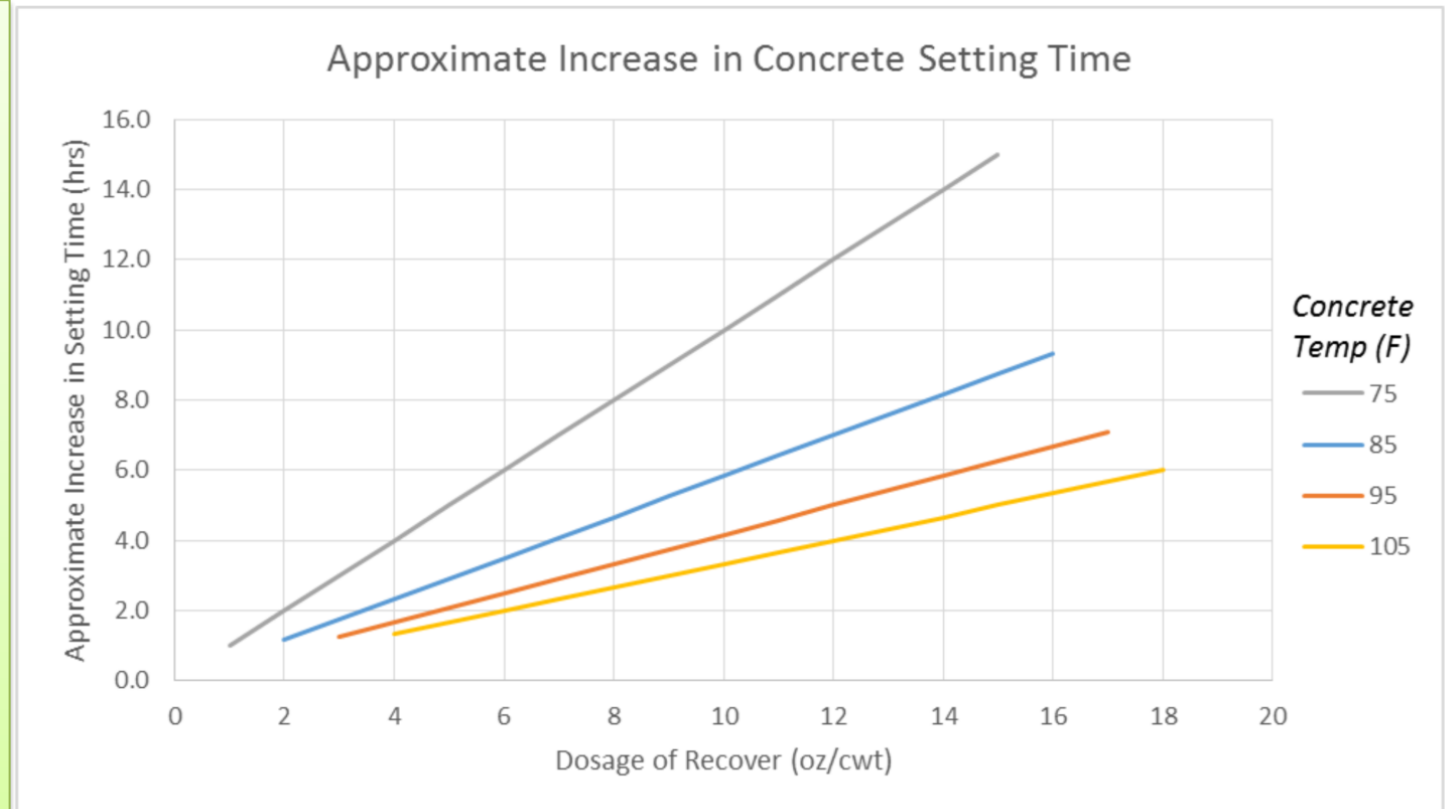
- Sprinkle coarse aggregates with water to reduce concrete temperatures and reduce slump loss.
- Cool mixer drums with water.
- Use chilled water or ice if there is a maximum temperature specified. (Value added)
- Use a hydration stabilizer to allow for a slower set, less slump loss and longer delivery times. Refer to the Recover Card. (Value added)
- Recommend microfiber when conditions exist that promote plastic shrinkage cracks. Refer to the Fiber User Guide Card. (value added)
- Recommend a Mid-Range or High Range Water Reducer to allow for faster placement and reduced use of water. (Value Added)

Hot Weather Concrete - Recover

RECOVER is a hydration stabilizers. Hydration stabilizers are specialized retarders that suppress all major hydration events to provide complete, predictable control over the setting process. Traditional retarders are less predictable hydration stabilizers; particularly at higher doses.

Benefits of Recover

- Predictable set time extension from 2 to 48 hours
- Extended slump life
- Allows longer hauls and discharge times.
 - Blockfill mixes
 - Drill Shaft mixes
 - Wheelborrow jobs
- Performance is predictable and controllable
- The hydration suppression reduces temperature increase.



Always test with local materials to determine exact dosages.

