



ASCC and NRMCA

Checklist for Concrete Producer- Concrete Contractor Fresh Concrete Performance Expectations

Prescription to Performance (P2P) Initiative



Developed and approved by
ASCC Technical Committee and
NRMCA Research Engineering and Standards (RES) Committee
©2012

Prescription-to-Performance (P2P)

Checklist for Concrete Producer-Concrete Contractor Fresh Concrete Performance Expectations

Introduction: The following checklist is intended for use in a pre-contract meeting between the concrete producer and concrete contractor to clearly define responsibilities of each party for performance of the fresh concrete. This checklist applies only to properties of the fresh concrete and is not a part of the contract documents but supplies an organizational framework for a partnering process. It's assumed that the proportions developed by the concrete producer will result in hardened concrete properties that meet the requirements in the contract documents. Fill in blanks only for items applicable to the project.

Producer responsibility

	Element Type	Setting time			Target slump, in**	Target Air content***
		Hot*	70°F	Cold*		
<input type="checkbox"/>	Footings					
<input type="checkbox"/>	Foundation Walls					
<input type="checkbox"/>	Exterior Slabs on Grade					
<input type="checkbox"/>	Interior Slabs on Grade					
<input type="checkbox"/>	Suspended Slabs [normalweight]					
<input type="checkbox"/>	Concrete Toppings					
<input type="checkbox"/>	Building Frame Members					
<input type="checkbox"/>	Building Walls					
<input type="checkbox"/>	Mass Concrete					

* Refers to concrete temperature (±5°F) as delivered

** Tolerance on target slump will apply – tolerance varies by slump level as stated in ASTM C94

*** ±1.5% tolerance applies to the target air content, e.g. 5% to 8% air content when 6.5% is specified target

Notes:

- Do not leave blanks in the table above. Place N/A in mixes or criteria where not required.
- Setting time (± 45 min.) as measured by ASTM C403 at 500 psi penetration for temperature shown. (Calorimetry is also an option). Recognize that finishing time is not the same as setting time.
- Provide temp ranges for hot and cold weather situations.
- Slump to remain within the stated range for 30 min starting either on arrival at the job site or after the initial slump adjustment per ASTM C94.
- Total air content for normal weight concrete to receive a burnished finish (repeated hard troweling) to be less than 3% as measured
 - in a preliminary test ___ at truck discharge point, or
 - a test at point of placement ___ at the jobsite .
- Concrete will be pumpable under the conditions outlined by the contractor (below)
- Concrete will be finishable under the conditions outlined by the contractor (below)

Concrete producer will advise contractor in writing of any changes made in:

- cement type or source
- supplementary cementitious material type, dosage, or source
- admixture type or source
- aggregate type or source

Expected variations in setting time, slump, air content, finishability and pumpability as a result of these changes will also be reported.

Contractor responsibility

Define responsibility for measuring slump, air content, and density (unit weight)

- Air content test method: pressure method or volumetric method
- Test frequency (cu yd) for slump _____ and air content _____ .
- Location for slump, air-content , and density testing end-of-chute; point of placement)
- Evaluation of the effect of placement method on air content and slump between point of discharge and point of placement (when specifications require testing at point of placement)

Contractor will allow jobsite addition of:

- Mixing water (in accordance with ASTM C94 requirements or project specifications)
- Air-entraining admixture
- Air-detraining admixture
- Water-reducing admixture

with the understanding that such jobsite mix adjustments may affect setting time and slump.

- Contractor requires a delivery rate of ____ cu yd/hr; Concrete contractor to communicate any changes in delivery rate to the producer
- Contractor requires an average truck spacing of _____ min. and will communicate any changes in this spacing to the concrete producer.
- Contractor will provide a contact surface temperature for both hot and cold weather placement (provide range)
- Contractor will moisten subgrade when required to improve finishability when permitted by the specifications
- Contractor will use a test placement to confirm needed finishability for critical work
- Concrete contractor or pumping subcontractor to indicate, as necessary:
 - Pump type (boom or trailer) _____ .
 - Line diameter _____ in., length _____ ft, (give horizontal and vertical dimensions)
 - Length of rubber hose _____ ft.
 - Number of 90 degree bends _____ .
 - Pump capacity _____ cu yd/hr
- Concrete contractor or pumping subcontractor to provide methods for assuring constant flow of concrete.
- Concrete contractor or pumping subcontractor to communicate any changes in pumping conditions to the concrete producer.

Identify contact persons for producer and contractor with cell phone and email addresses – preferred method

The National Ready Mixed Concrete Association is a trade association representing producers of ready mixed concrete and those companies that provide materials and support to the industry. The primary goal of NRMCA is to increase the professionalism of the industry. NRMCA provides its members with education, training, product promotion assistance, information on research and technology and representation before Congress and regulatory bodies.



National Ready Mixed Concrete Association

900 Spring Street
Silver Spring, MD 20910, USA
Ph: (301) 587-1400; Fax (301) 585-4219
www.nrmca.org

The American Society of Concrete Contractors is a non-profit organization dedicated to enhancing the capabilities of those who build with concrete. Members of ASCC are concrete contractors, material suppliers, equipment manufacturers, and others involved in concrete and decorative concrete construction. ASCC provides a unified voice in the concrete construction industry, and offers many services including: an extensive safety program, problem solving assistance, networking opportunities, and educational materials.



American Society of Concrete Contractors

2024 S. Brentwood Blvd., Suite 105
St. Louis, MO 63144
Ph: 314-962-0210 Fax: 314-968-4367
www.ascconline.org