

Concrete Property Suite of Tests

Level C Suite of Tests (recommended)



City streets and low-volume roads.

Mixture Property			Project Stage		
Test Name	Test Procedure(s)	Proposed Testing Frequency (minimum 1 per day)	Mixture Design/ Proportioning	Pre-Construction Mixture Verification	Quality Control
Workability					
Combined Grading: Coarseness and Workability Factors, 0.45 Power Curve, and Percent Retained on Individual Sieves	ASTM C 136 / AASHTO T 27	every 1,500 yd ³	✓	✓	✓
Aggregate Moisture Content	ASTM C 566 / AASHTO T 255	every 1,000 yd ³	✓	✓	✓
Slump and Loss of Workability	ASTM C 143 / AASHTO T 119	every 500 yd ³	✓	✓	✓
Strength Development					
Concrete Strength (3 and 7 day)	ASTM C 39 / AASHTO T 22 ASTM C 78 / AASHTO T 97 ASTM C 293 / AASHTO T 177	at each project stage noted	✓	✓	
Air Entrainment					
Unit Weight	ASTM C 138 / AASHTO T 121	every 500 yd ³	✓	✓	✓
Air Content	ASTM C 231 / AASHTO T 152 ASTM C 173 / AASHTO T 196	every 500 yd ³	✓	✓	✓
Permeability					
Permeable Voids (boil test)	ASTM C 642	at each project stage noted	✓		
Other Properties					
Optional for all Project Levels: Strength-Maturity Relationship for Early Opening to Traffic	ASTM C 1074 / AASHTO T 325	(optional) place two sensors every day (a.m. & p.m.)		✓ (optional) develop strength-maturity relationship	✓ (optional)
Alkali-Silica Reactivity	agency material prequalification ASTM C 1260 ASTM C 1293 ASTM C 1567 / AASHTO T 303	n/a			
Aggregate Durability	agency material prequalification ASTM C 666 / AASHTO T 161	n/a			

FOR MORE INFORMATION

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