

Procedure Checklist

ASTM C-78 Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)

		P	F	N/A
Item				
1.	Protect specimen from loss of moisture.			
2.	Turn test specimen on its side with respect to its position as molded and center on bearing blocks.			
3.	Center the loading system in relation to the applied force.			
4.	Bring the load-applying blocks in contact with the surface of the specimen at the third points and apply a load of between 3 and 6% of the estimated ultimate load.			
5.	Check for gaps between the specimen and the load-applying or support blocks that exceed 0.004 in. [0.10 mm] over a length of 1 in. [25 mm] or more.			
6.	If a gap greater than 0.004 in. [0.10 mm] but not more than 0.015 in. [0.40 mm] exists over a length of 1 in. [25 mm] or more, correct the condition by capping or grinding, or by using leather shims extending the full width of the specimen at all specimen contact surfaces.			
7.	If a gap greater than 0.015 in. [0.40 mm] exists over a length of 1 in. [25 mm] or more, remove the test specimen and correct condition by capping or grinding. Renew testing sequence at item 1.			
8.	Determine the loading rate.			
9.	Load the specimen continuously and without shock.			
10.	Apply the load at a rate which constantly increases the maximum stress between 125 and 175 psi/min [0.9 and 1.2 MPa/min] until rupture occurs.			
11.	Take three measurements across each dimension at the failure plane (one at each edge and at the center) to the nearest 0.05 in. [1 mm].			
12.	Record average width, average depth, and line of fracture location at the section of failure.			
13.	Calculate modulus of rupture.			
14.	Report all pertinent data.			

Remarks: _____ **Comparison Criteria:** ± 19% of calculated modulus of rupture of IA results

Date: _____ Technician: _____ IA Observer: _____

Technician's E-mail Address: _____

Employer's/ Supervisor's E-mail Address: _____