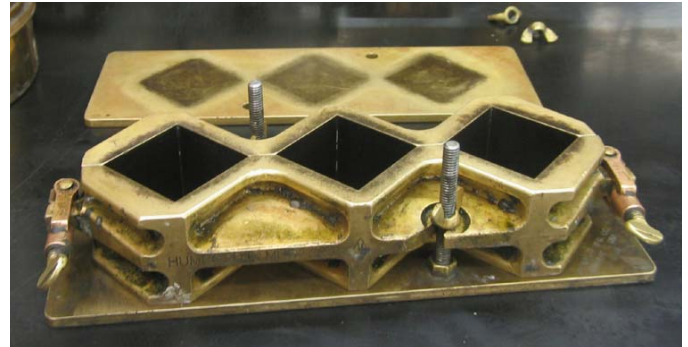


Five Star[®] Cementitious Grouts should be tested for compressive strength using 2" x 2" inch cube specimens made in brass or steel cube molds and a cover plate as directed in ASTM C 942. The use of cylinders, plastic molds, lack of a cover plate or curing at temperatures below 70°F will all result in lower compressive strengths being reported.

A. Equipment Required for Testing

- 2" x 2" brass or steel cube mold + cover plate
[plastic molds or plastic inserts not acceptable]
- Release Agent
- Compression Testing Machine
- Moist Cabinet – Temperature 70°F – 77° F, Humidity 95 % min.



2" x 2" brass cube mold with cover plate

B. Test time tolerances

- 1 day ± ½ hour (from start time)
- 3 days ± 1 hour (from start time)
- 7 days ± 3 hours (from start time)
- 28 days ± 12 hours (from start time)

C. Compressive Strength Requirement

- See Product Datasheet of product being tested.

D. Testing Procedure

1. Using mold release agent, spray cube mold and cover plate.
2. **Flowable or Fluid** consistency grout: fill all cube molds halfway with grout. Puddle grout in cube mold 5 times with gloved finger or tamping rod; fill mold full with grout, puddle with gloved finger or tamping rod 5 times.
Dry-Pack consistency grout: fill cube mold ½ way and tamp 25 times using tongue depressor or tamping rod. Repeat process for dry-pack consistency grout two more times, tamping each new layer of grout into previous layer until cube mold is filled.
3. **Dry-Pack** consistency grout (only): tap the side of cube mold 5 times (each side) with rubber mallet for dry-pack consistency grouts.
4. Screed off excess grout so the surface of each specimen is flush with the top of the mold.



Fill cube mold ½ way with fluid/flowable grout.



Puddle 5 times with gloved finger or tamping rod.

5. Clean off any excess material on the top of the mold.
6. Place the cover plate on the mold and tighten with screws or clamps.
7. Move the mold to a nearby job site trailer or similar area where temperatures are above 65°F, cover mold with wet towel and leave undisturbed for 24 hours. **DO NOT** transport newly cast cube specimens of cementitious grout any significant distance for 24 hours.
8. Identify cubes with product name, batch code, start time, age, test date and water content.
9. Leave mold undisturbed for 24 hours.
10. De-mold cubes after 24 hours and break one cube. Place remaining cubes in a moisture cabinet in a laboratory. The other cubes are tested at 7 days and 28 days.
11. When testing cubes do not apply the load to the original top or bottom cube surfaces (rotate cubes 90° before loading in compression tester).
12. Record the compressive strength in pounds per square inch by dividing the cross sectional area by load.



Clean off excess material from the top of the mold.



Tighten the cover plate with screws or clamps.

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