

## TEST CUBE PROCEDURES

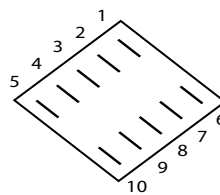
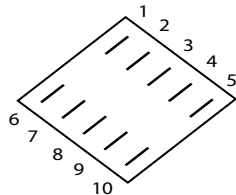
To achieve accurate compressive strength results, proper making and handling of test cubes is essential. Always make three (3) cubes per sample. Please follow the steps outlined below when taking and sending cube samples to our testing laboratory:

### SUPPLIES

1. Bronze mold (ASTM approved)
2. Mineral oil / WD-40, PAM cooking spray or vegetable oil spray
3. 1 quart (.95 liter) container
4. Stir or tamping stick
5. Broad knife or spatula

### PROCEDURE

1. Coat the molds with a thin film of mineral oil, WD-40, PAM or vegetable cooking spray.
2. Set the bronze cube mold in a safe, flat area where it will not be disturbed for at least two hours. Cube mold should not be more than 50 feet (15.24 meters) from where material sample is obtained.
3. Always take sample from the end of the hose, not from the mixer or hopper. Use a container that will hold enough material to make (3) cubes. Carefully carry it to the cube mold. Before pouring the sample into the mold, gently stir until sand is suspended.
4. Take a patty size test.
5. Place a layer of Hacker Floor Underlayment about 1" (25mm) deep into each mold and gently tamp 10 times across two parallel sides of mold to remove air bubbles (do not stir). Continue to fill each mold to a point slightly above the top of the molds by the same filling procedure used for the first layer and tamping ten times across opposite parallel sides of mold. Do not move the cube mold for a minimum of two hours or until the Hacker Floor Underlayment has set.



**Test Cube Procedures (Cont.)**

6. After the gypsum has set, scrape off any excess material with a broad knife or spatula leaving a flat surface, flush with the top of the mold.
7. Transport the cube samples very carefully from the job site.
8. The cubes may be removed from the molds as soon as thoroughly hardened, but must be maintained in moist air (90-100% relative humidity) for a minimum of 16 hours, but no more than 24 hours. This can be achieved by putting the cubes in a sealed zip-top bag. The next day (after 16 hours minimum in bag) remove cubes from sealed zip-top bag and set on desk to air dry 2-3 days.
9. Wrap each cube individually using bubble wrap or newspaper and ship in a box surrounded with additional protective packing material. Cube boxes for shipping are available from Hacker Industries, Inc. It is extremely important that the cubes be received in good condition. Damaged cubes will provide inaccurate test results.
10. Please fill in all data requested on the top half of the Product Test Report Form and send it with the cubes. If you are shipping more than one set, please clearly identify the cubes and forms. Ship sample by first class mail, UPS or Federal Express to address below. Note: If sending samples overnight for rushed results, please notify Kevin Chung

**HACKER INDUSTRIES, INC. LAB**

ATTN: Kevin Chung  
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La Habra, CA 90631  
(949) 729-3101

11. After the cubes have been tested, the results will be entered onto a Test Report Form and returned to you.

Notes: Testing of cubes is done according to ASTM C472 Modified: Standard Test Methods for Physical Testing of Gypsum, Gypsum Plasters, and Gypsum Concrete.

Please be advised that Hacker Industries, Inc. does not prepare the cube samples for testing and cannot guarantee the authenticity or exact origin of the samples tested. Hacker Industries, Inc. processes and tests specimens sent to us by our Licensed Applicators for internal quality control only.

# **Hacker Industries, Inc.** *Premier Floor Underlayments and Acoustical Control Products*

