



**HAWAIIAN CEMENT**

A Subsidiary of Knife River Corporation

# Mix Your Own Concrete!

## Easy as 1 - 2 - 3

Hawaiian Cement has made it easy as 1 - 2 - 3 to mix your own concrete. Just follow this simple guide, and get ready to start all of those fun projects you've been wanting to complete.

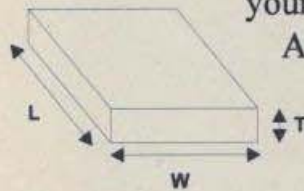
### 1 HOW MUCH MIXED CEMENT WILL I NEED?

Use the Hawaiian Cement Concrete Estimator to

determine how much concrete you'll need for your project.



All you

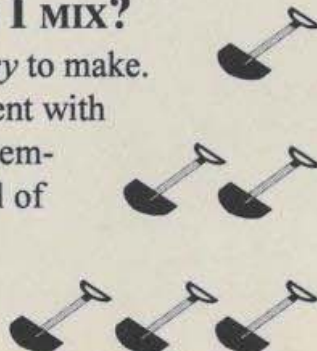


need to know are the length, width, and thickness of the area. Simple 1 - 2 - 3 instructions are right on the estimator.

### 2 HOW MUCH CEMENT, SAND & ROCK DO I MIX?

Concrete is *easy* to make.

Simply mix Hawaiian Cement with sand, rock, and water. Remember "1 - 2 - 3." One shovel of cement, two shovels of sand, and three shovels of rock. That's the right proportion for driveways.



Although driveways require a mix that makes very strong concrete, for general home projects that don't require such strength, you can mix in more sand and rock. Use about 6 gallons of water per sack of cement. The table shows you how to mix concrete for other projects.



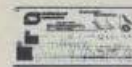
| PROJECT          | Cement Sacks | Sand Cu. Ft. | Rock Cu. Ft. | CONCRETE YIELD Cu. Ft. |
|------------------|--------------|--------------|--------------|------------------------|
| DRIVEWAY         | 1 +          | 2 +          | 3 =          | 4                      |
| GENERAL PROJECTS | 1 +          | 3 +          | 4 =          | 5-1/2                  |
| FENCE POST       | 1 +          | 4 +          | 5 =          | 6-1/2                  |

### 3 HOW MANY SACKS OF MATERIALS DO I NEED?

Using the 1 - 2 - 3 shovel mix above, for every 1 cubic foot of cement (one 94 pound sack is one cubic foot), you would mix 2 cubic feet of sand and 3 cubic feet of rock. After adding water, the mixed concrete would total 4 cubic feet. This is called the concrete yield. (The combined mixture will have less volume than the components before mixing.)

To determine the number of Hawaiian Cement sacks needed, simply divide the mixed concrete yield (from the table) into the total amount of concrete needed for your project (Your answer using the estimator in step 1).

*Look at this example to see how it's done.*



$$\frac{12 \text{ cu. ft. Concrete Needed}}{4 \text{ cu. ft. Concrete Yield}} = 3 \text{ Cement Sacks}$$



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