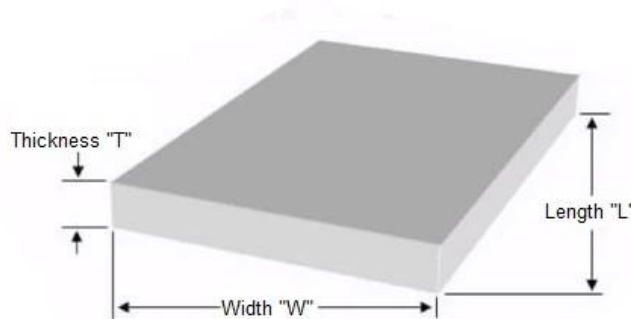




### MATERIAL CALCULATIONS –TROWEL / CUBIC FEET

**Condition:**

Calculating the number of unit kits needed for an application to help you estimate a project and purchase the correct amount is important. Based on the application thickness or type of finish established for the job the calculation is best done by knowing the estimated cubic feet needed. Length and Width are usually figured out quickly, the discussion begins with the level of thickness that is necessary and once that is decided upon, you can calculate cubic feet. (L x W x T). See figure below;



When measuring your job site, accuracy matters. Be sure you've measured correctly and always have extra product on-hand in case you need more.

**Factor:**

Much like working with regular concrete, your experience along with common sense will guide you when working with a small batch concrete mix repair product. The condition of the substrate requiring repair and the type of finish dictates the thickness needed to produce the desired end result. Different projects call for varying mix ratios to be used. Depending on the application, Finalcrete offers a range of mixing ratios from between a 1:2 ratio slurry to a 1:3.5 ratio stiff mix (liquid to dry) offering versatility on the job with one product. Layering Finalcrete or doing the thickness in two or three "lifts" will add to the repair strength as Finalcrete likes to stick to itself.

**Technique:**

General mixing guidelines exist for Finalcrete from finishing restoration work to spray top finish to straight forward repair patch work. The mix ratio for parge is generally 1:3 allowing for either vertical or horizontal work to be applied and completed easily. You can apply Finalcrete on to a damp surface and this is especially true during hot conditions. Start by calculating the square footage of your job site. That's the length times the width. For a 10 by 10 space the area is 100 square feet. Next, calculate the optimum thickness for the application. With most measures done in inches, you'll need to convert the imperial inches measure for thickness into feet.

See handy scale listed below;

$1/16'' = 0.0625 \text{ inch} = 0.0052083 \text{ feet}$

$1/8'' = 0.125 \text{ inch} = 0.0104167 \text{ feet}$

$1/4 = 0.25 \text{ inch} = 0.0208334 \text{ feet}$

$1/2 = 0.5 \text{ inch} = 0.0416667 \text{ feet}$

$3/4 = 0.75 \text{ inch} = 0.0625 \text{ feet}$

$1'' = 1.0 = 0.0833334 \text{ feet}$

$2'' = 2.0 = 0.1666667 \text{ feet}$

To calculate the cubic feet use the formula length times width times thickness. For a 100 square foot area that is best repaired troweled at  $1/8''$ , or 0.01042 feet, the cubic foot measure is 100 times 0.01042, or 1.042 cubic feet. Now, divide the total cubic feet by the trowel repair ratio, which is 1:3 of liquid to mix yield, or 0.40 cubic feet per kit to obtain the total number of kits. In the case of our trowel example, you would need at least 2.6 unit kits to complete the job and it's always best to round up so the material calculation answer is 3 unit kits.

**Tips:**

Always mix enough product that you can apply at one time. Place liquid in bucket first and add Finalcrete Mix (Component B) slowly before mixing with paddle drill.

A thin top coat or overlay can be applied and feathered to  $1/16''$  (1.6 mm) without adhesion loss. Surfaces can be smooth or skid-resistant finished.

Always consider climate temperatures and humidity when applying including substrate surface. Adjust application techniques to accommodate and protect from direct hot sunlight and high winds when applying outdoors.

These tips and techniques for assisting with material calculations and workability should help with your estimating of concrete repair and restoration projects.