

BONSAI SOIL MIX WITH ISOLITE®CG

Bonsai Pot Sizes, the amount of ISOLITE® CG used, and the cost of ISOLITE® CG for each pot size; **pricing is approximate.**

FORMULA to figure out how much ISOLITE® CG is used in a Bonsai soil mix - assume a 20% by volume of ISOLITE® CG:

$L \times W \times H =$ cubic inches. Divide by 1728 (number of cubic inches in a cubic foot). Take this figure times 32 (# pounds of ISOLITE® CG in a cubic foot). This number is taken times .20 (the amount of ISOLITE® CG used in a typical mix or 20%). This number will give you the number of pounds of ISOLITE CG that is used in the given pot. This number is times the price per pound (delivered). This will give one the cost of ISOLITE that is used in each sized pot.

This will help you determine both how much ISOLITE® CG to order and what the cost will be.

length x width x height

5" x 3.7" x 3/4" 12.8 / 9.4 / 2.0 (cm) **Cost: \$ 0.12**

Calculation: $5" \times 3.7" \times 3/4" = 13.875$ cubic inches. 13.875 divided by 1728 = .008 cubic feet. .008 x 32 = .256 cubic foot of ISOLITE® CG if used at 100%.

.256 x .20 = .052. .052 times \$2.30 = \$.12 worth of ISOLITE® CG in this size container.

8" x 5.75" x 2.25" 14.5 / 5.7 (cm) **Cost: \$ 0.89**

Calculation: $L \times W \times H = 103.5$ cubic inches. Divided by 1728 = .06 x 32 pounds = 1.92 pounds ISOLITE® CG if used 100%. $1.92 \times .20 = .385$ cubic foot of ISOLITE® CG. $.385 \times \$ 2.30 = \$.89$ worth of ISOLITE® CG in this size container.

12" x 8" x 3.25" 30.48 / 20.32 / 8.25 **Cost: \$ 2.64**

Calculation: $LWH = 312$ cubic inches. 312 Divided by 1728 = .18 cubic foot. $.18 \times 32 = 5.76$ pounds of ISOLITE® CG if used at 100%. $5.76 \times .20 = 1.15$ pounds of ISOLITE used. 1.15 pounds of 2 mm ISOLITE® CG @ \$2.30/pound = \$2.64 worth of ISOLITE® CG used.

20" x 12" x 4" 50.8 / 30.48 / 10.16 **Cost: \$ 8.05**

Calculation: $LWH = 960$ cubic inches. 960 divided by 1728 = .56 cubic foot. $.56 \times 32 = 17.92$ pounds ISOLITE® CG if used 100%. Multiply by .20 = 3.5 pounds of ISOLITE used. 2 mm ISOLITE® CG at \$2.30/pound = \$8.05 worth of 2 mm ISOLITE® CG used.

Solid Oxygen Source (SOS)

- Can be mixed with Isolite®CG at a 10% by volume ratio
- is made of sodium percarbonate and is coated with a proprietary blend of compounds that produces and slowly releases oxygen
- when applied in the soil with Isolite®CG, the released oxygen will disperse both in the Isolite®CG and the surrounding soil

The above guide should help you determine the quantity of ISOLITE®CG you will need to order.

Properties:

- Made from **diatomaceous earth** and a small amount of clay particles
- **Chemically inert particle density:** 2.27 (compared to 2.56 for sand)
- **Pore characteristics:** continuous, interconnected and open ended; thereby, permitting easy inoculation with microbes. Because of the internal pores, immobilized microbes are protected from shear kill.
- **Pore size:** 0.1 to 2 microns with 30% being over 1 micron
- **Life expectancy:** Isolite has an indefinite lifetime and can be reused.

Isolite, Porous Ceramic Specifications:

- Total Intrusion Volume (cc/gram) - **0.5786**
- Total Percent Porosity - **74.18**
- Total Surface Area (m²/gram) - **20.42**
- Median Pore Diameter Based on volume in Microns - **1.36**
- Bulk Density (g/cc) - **0.949**

Chemical Composition:	(SiO ₂ - 78%, Al ₂ O ₃ - 12%; Fe ₂ O ₃ - 5%)
Specific Surface Area:	1 gram equals about 21 meters (4.6 m sq.)
Bulk weight:	850 lbs. per cubic yard or 32 lbs. per cubic foot
Manufacturing Processes:	extruded for size consistency and dried using proprietary combustion
Water Retention:	absorbs and wicks water exceedingly well - does not swell or soften, and water is released slowly and holds oxygen released by SOS.
Granular Size (in diameter):	1 mm CG-1, 2 mm (CG-2), and CG-R (sand size and shape, not extruded).

