# Tamping, Tipping, and Concrete Mixing are History!

# PoleCrete<sup>™</sup> lets you set poles quickly, permanently, and inexpensively in any soil without pouring concrete.

- Eliminates time, labor, and material expense of forming, pouring, and curing reinforced concrete
- Requires no special equipment for use
- Can be used year round, even in extremely cold climates
- Environmentally safe no ozone depleting chemicals
- Safe to use
- Packaging acts as storage, mixing, and disposal container
- Long lasting, with long shelf life
- Install new poles, including fiberglass, wood, etc., or straighten and stabilize old ones



PoleCrete<sup>M</sup> grips the pole from inside the hole and presses against the soil to hold the pole much better than tamped soil.

Available in convenient 1-gallon, 2-gallon, 3-gallon, and 5-gallon kits which include pre-assembled mixing blade for ¼" drill, gloves, and stirring paddle.

After only 15 minutes, remove supports, tidy the ground line, and move on to the next pole.

# Shakespeare Composite Structures



Mix the two parts together in the box they come in.





Pour the liquid into the hole around the pole.



# Fast, easy pole installation without soil tamping or concrete

Advanced-formula PoleCrete<sup>™</sup>, puts the <u>squeeze</u> on the surrounding soil to set poles fast, easy, and inexpensively without time consuming soil tamping and without pouring concrete. The foam works in virtually any type of soil, even rock and sand. It works in any climate, even extremely cold ones.

Use PoleCrete<sup>™</sup> for:

Setting new poles Uprighting damaged poles Communication dishes Cable protection Pedestal fill Gate and fence posts Billboard poles Pole barn poles Highway sign poles H-Frame supports

Environmentally safe: The EPA does not classify PoleCrete<sup>™</sup> as a hazardous material or hazardous waste, and the product contains no ozone depleting chemicals, no CFC's.

## **Specifications**

Definition: PoleCrete  $^{\rm m}$  Stabilizer is a 3.5-4.0 pcf density NON-CFC blown, rigid urethane foam system.

Product Data (Typical Properties)

|                             | <u>A</u>  | B            |
|-----------------------------|-----------|--------------|
| Viscosity @ 77º F, cps      | 200       | 1700-2100    |
| Specific Gravity            | 1.24      | 1.10         |
| Mix ratio, by volume        | 1         | 1            |
| Cream Time, seconds         | 3         | 5-55         |
| Gel Time, seconds           | 12        | 0-155        |
| Tack Free Time              | Or        | n Rise       |
| Demold Time                 | 8-12 minu | utes @ 77º F |
| Free Rise Core Density, pcf |           |              |
| (ASTM D-1622)               | 3.        | 5-4.0        |
| Compressive Strength        |           |              |
| (ASTM D-1621)               | 70-       | 80 psi       |
| Flexural Strength           |           |              |
| (ASTM D-790)                | 85-       | 95 psi       |
| Shear Strength              |           |              |
| (ASTM C-273)                | 45-       | 55 psi       |
| Tensile Strength            |           |              |
| (ASTM D-1623)               | 90-3      | 110 psi      |
| Impact                      | 1.2-1.6   | lbs/sq. in.  |
|                             |           |              |

## Benefits:

Safe and economical to use

Convenient kits, easy to use and dispose

Expands up to 20 times its volume

Compressive strength 3 to 4 times that of undisturbed soil

Equal to crushed stone against uplift

Superior to stone in resistance to overturning

Helps reduce ground level decay in wood poles

Reduces labor costs by 50%

No tamping required



Straighten poles in one visit with PoleCrete<sup>™</sup>. No tamping required, and no re-tamp as fill settles.



Shelf life Recommended storage Availability Approximate yield Recommended safety protection At least 1 year 35° F or higher Kits of 1, 2, 3, and 5 gallons 2.5 cu. ft. per gallon Gloves and goggles



### Frequently asked questions

- Q: Can I use PoleCrete<sup>™</sup> on fiberglass poles?
- A: Yes. The foam works equally well with fiberglass, wood, metal, or concrete poles.
- Q: Is special clothing needed to safely use foam?
- A: We recommend wearing gloves and protective glasses when mixing the chemicals. Gloves are provided with 1-gallon, 2gallon, 3-gallon, and 5-gallon kits.
- **Q:** Will cold temperatures affect the foam?
- A: Yes. As with all chemical reactions, low temperatures will slow the reaction. We recommend raising the temperature of the chemicals above 50° F. prior to mixing by simply storing kits in the truck's cab before using.
- Q: Is PoleCrete<sup>™</sup> ruined if it freezes?
- A: No. We formulate PoleCrete<sup>™</sup> Stabilizer with ingredients that are not affected by freezing. If freezing occurs, we recommend bringing the chemicals to liquid state by raising the temperature. Then, simply tumble the containers prior to mixing.
- Q: In northern climates there are times when we set new poles in the winter. Frequently, before we can put the soil back into the hole, it freezes. Then we cannot properly tamp it. It takes twice as long to tamp a pole under these conditions and we always have to return in the spring to re-tamp and finish the job. This is very costly. Will PoleCrete<sup>™</sup> help us?
- A: Yes. The bottom of the hole stays 55°-58° (F.) year round. PoleCrete<sup>™</sup> Stabilizer is formulated to react at this temperature. We recommend drilling the hole just prior to setting the pole. If this isn't possible, cover the hole with a tarp to prevent wind, snow, or rain from blowing in until you are ready to set the pole. If the hole is left uncovered and freezes, you can still use the foam. Simply put a fire in the hole to warm it. Light a kerosene-soaked rag and throw it in the hole. When the fire goes out, set the pole in, plumb it, mix the PoleCrete<sup>™</sup> Stabilizer, and pour the mixture in the hole. In ten minutes the foam is hard enough to hold the pole, so you can move to the next pole. Springtime revisits are not needed.
- Q: Can I set a pole in standing water using PoleCrete™?
- A: No. We recommend pumping water from the hole prior to foaming. A damp hole will not adversely affect foam.
- Q: Will the foam cause the pole to rise from the hole during a flood?
- A: No. The amount of buoyancy the foam gives to the pole is as negligible as the amount of flotation tires give to an automobile in a lake.



- A: No. We recommend always using a drill to insure thorough blending, proper expansion, and maximum strength.
- Q: We have been using a competitor's foam out of 55-gallon drums. In order to keep the "B" side mixed we have to stir it at least once a day. Is this necessary with PoleCrete<sup>™</sup> Stabilizer?
- A: No. We do not add "extenders" to our product because they adversely affect results. Consequently, daily mixing of either of the components is not necessary. Also, because we use only top quality ingredients, we guarantee shelf life for 12 months.
- Q: Is PoleCrete<sup>™</sup> Stabilizer foam affected by acid soil conditions?
- A: No. It's not only not affected by acids, it also keeps the preservatives in wood poles from leaving the poles. If you set new wood poles in foam, you can expect them to last longer. Utility companies have reported virtually no ground line decay on poles set with foam.
- Q: Are poles originally set with foam difficult to remove?
- A: Yes. This is why companies have used foam to counteract wind uplift on H-frame structures. Poles can be removed by drilling one or two holes next to them and rocking them back and forth. The foam will stay on the pole and can be removed with a shovel or saw. However, by leaving the foam on wood poles that are to be reset, and setting them in new holes with additional PoleCrete™ Stabilizer, the preservatives will remain in the pole, and a much longer pole life should result.
- Q. The foam is hard enough in 10 minutes to support a newly set pole. Is it rigid enough in that time to stabilize a leaning pole?
- A: Probably not. Since a leaning pole is under load from conductors, it is advisable to hold the pole straight for 15 minutes before releasing it. Unlike straightening a pole using conventional backfill materials (earth, rock riprap), which often requires several trips due to compression, you only have to perform the job once with PoleCrete<sup>™</sup> Stabilizer. The foam provides continuous support from the butt of the pole to the ground line with a compressive strength of over 10,000 psf. That's three to four times that of undisturbed earth. This feature alone makes using foam very cost effective.
- Q. If more rigid foam is needed in a hole, can more be added?
- A. Yes. However, never pour more PoleCrete<sup>™</sup> Stabilizer on foam while it is rising. It is recommended to wait five minutes between pours.



#### How to calculate how much PoleCrete<sup>™</sup> is needed

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The chart at right lists the net volume of an installation by pole diameter (inches) or circumference (inches). Determine Pole Diameter or Circumference (PD) at butt of pole (inches). Determine Auger Size (AS) in inches. From Pole Diameter/ Circumference, read across to Auger Size column to determine Gallons of Material per Foot (GpF). Determine Burial Depth (BD) in feet. Multiply the GpF shown in the table by the Burial Depth.

#### Example:

PD=10.5; AS=18; BD=5; GpF=0.44

$$0.44 \times 5 = 2.2$$
 gallons

You can also use the formula below to calculate the amount you need. In the formula, all dimensions are in feet, not inches.



| Kit | Size | per | Foot | of | Burial | Depth |
|-----|------|-----|------|----|--------|-------|
|-----|------|-----|------|----|--------|-------|

| Pole                     | Pole                         |      |      |      |      | Auger Diameter (inches) |      |                              |                              |                              |                      |                      |
|--------------------------|------------------------------|------|------|------|------|-------------------------|------|------------------------------|------------------------------|------------------------------|----------------------|----------------------|
| Dia."                    | Circumference                | 8    | 10   | 12   | 14   | 16                      | 18   | 20                           | 22                           | 24                           | 30                   | 36                   |
| 5                        | 15.7                         | 0.08 | 0.15 | 0.25 | 0.35 | 0.48                    | 0.62 | 0.77                         | 0.95                         | 1.14                         | 1.81                 | 2.63                 |
| 5.5                      | 17.3                         | 0.07 | 0.14 | 0.23 | 0.34 | 0.47                    | 0.61 | 0.76                         | 0.94                         | 1.13                         | 1.80                 | 2.61                 |
| 5                        | 18.8                         | 0.06 | 0.13 | 0.22 | 0.33 | 0.45                    | 0.59 | 0.75                         | 0.93                         | 1.12                         | 1.78                 | 2.60                 |
| 5.5                      | 20.4                         | 0.04 | 0.12 | 0.21 | 0.32 | 0.44                    | 0.58 | 0.74                         | 0.91                         | 1.10                         | 1.77                 | 2.59                 |
| 7                        | 22                           | 0.03 | 0.11 | 0.20 | 0.30 | 0.43                    | 0.57 | 0.72                         | 0.90                         | 1.09                         | 1.76                 | 2.58                 |
| 7.5                      | 23.6                         | 0.02 | 0.09 | 0.18 | 0.29 | 0.41                    | 0.55 | 0.71                         | 0.88                         | 1.07                         | 1.74                 | 2.56                 |
| 8                        | 25.1                         |      | 0.07 | 0.17 | 0.27 | 0.40                    | 0.54 | 0.69                         | 0.87                         | 1.06                         | 1.73                 | 2.54                 |
| 8.5                      | 26.7                         |      | 0.06 | 0.15 | 0.26 | 0.38                    | 0.52 | 0.68                         | 0.85                         | 1.04                         | 1.71                 | 2.53                 |
| 9                        | 28.3                         |      | 0.04 | 0.13 | 0.24 | 0.36                    | 0.50 | 0.66                         | 0.83                         | 1.02                         | 1.69                 | 2.51                 |
| 9.5                      | 29.8                         |      | 0.02 | 0.11 | 0.22 | 0.34                    | 0.48 | 0.64                         | 0.81                         | 1.00                         | 1.67                 | 2.49                 |
| 10                       | 31.4                         |      |      | 0.09 | 0.20 | 0.32                    | 0.46 | 0.62                         | 0.79                         | 0.98                         | 1.65                 | 2.47                 |
| 10.5                     | 33                           |      |      | 0.07 | 0.18 | 0.30                    | 0.44 | 0.60                         | 0.77                         | 0.96                         | 1.63                 | 2.45                 |
| 11                       | 34.6                         |      |      | 0.05 | 0.15 | 0.28                    | 0.42 | 0.58                         | 0.75                         | 0.94                         | 1.61                 | 2.43                 |
| 11.5                     | 36.1                         |      |      | 0.02 | 0.13 | 0.26                    | 0.40 | 0.55                         | 0.73                         | 0.92                         | 1.59                 | 2.40                 |
| 12                       | 37.7                         |      |      |      | 0.11 | 0.23                    | 0.37 | 0.53                         | 0.70                         | 0.89                         | 1.56                 | 2.38                 |
| 12.5                     | 39.3                         |      |      |      | 0.08 | 0.21                    | 0.35 | 0.50                         | 0.68                         | 0.87                         | 1.54                 | 2.35                 |
| 13                       | 40.8                         |      |      |      | 0.06 | 0.18                    | 0.32 | 0.48                         | 0.65                         | 0.84                         | 1.51                 | 2.33                 |
| 13.5                     | 42.4                         |      |      |      | 0.03 | 0.15                    | 0.29 | 0.45                         | 0.62                         | 0.81                         | 1.48                 | 2.30                 |
| 14                       | 44                           |      |      |      |      | 0.12                    | 0.26 | 0.42                         | 0.59                         | 0.78                         | 1.45                 | 2.27                 |
| 14.5                     | 45.6                         |      |      |      |      | 0.09                    | 0.23 | 0.39                         | 0.57                         | 0.76                         | 1.42                 | 2.24                 |
| 15                       | 47.1                         |      |      |      |      | 0.06                    | 0.20 | 0.36                         | 0.53                         | 0.72                         | 1.39                 | 2.21                 |
| 15.5                     | 48.7                         |      |      |      |      | 0.03                    | 0.17 | 0.33                         | 0.50                         | 0.69                         | 1.36                 | 2.18                 |
| 16                       | 50.3                         |      |      |      |      |                         | 0.14 | 0.30                         | 0.47                         | 0.66                         | 1.33                 | 2.15                 |
| 16.5                     | 51.8                         |      |      |      |      |                         | 0.11 | 0.26                         | 0.44                         | 0.63                         | 1.30                 | 2.11                 |
| 17                       | 53.4                         |      |      |      |      |                         | 0.07 | 0.23                         | 0.40                         | 0.59                         | 1.26                 | 2.08                 |
| 17.5                     | 55                           |      |      |      |      |                         | 0.04 | 0.19                         | 0.37                         | 0.56                         | 1.23                 | 2.04                 |
| 18                       | 56.5                         |      |      |      |      |                         |      | 0.16                         | 0.33                         | 0.52                         | 1.19                 | 2.01                 |
| 18.5                     | 58.1                         |      |      |      |      |                         |      | 0.12                         | 0.29                         | 0.48                         | 1.15                 | 1.97                 |
| 19                       | 59.7                         |      |      |      |      |                         |      | 0.08                         | 0.25                         | 0.44                         | 1.11                 | 1.93                 |
| 19.5                     | 61.3                         |      |      |      |      |                         |      | 0.04                         | 0.21                         | 0.40                         | 1.07                 | 1.89                 |
| 18<br>18.5<br>19<br>19.5 | 56.5<br>58.1<br>59.7<br>61.3 |      |      |      |      |                         |      | 0.16<br>0.12<br>0.08<br>0.04 | 0.33<br>0.29<br>0.25<br>0.21 | 0.52<br>0.48<br>0.44<br>0.40 | 1.<br>1.<br>1.<br>1. | 19<br>15<br>11<br>07 |

#### **How To Order**

Each gallon of PoleCrete<sup>™</sup> Stabilizer makes approximately 2.5 cubic feet of rigid backfill. Since PoleCrete<sup>™</sup> works well in confined spaces, you may wish to reduce the diameter of augered holes to further reduce costs. Use the formula at left to provide a quideline for how much foam is needed. Order PoleCrete<sup>™</sup> in kits of 1 gallon, 2 gallons, 3 gallons, or 5 gallons.

#### **PoleCrete<sup>™</sup> Stabilizer:**

|               | Catalog Number |
|---------------|----------------|
| 1 Gallon Kit  | BMK-01-PS      |
| 2 Gallon Kit  | BMK-02-PS      |
| 3 Gallon Kit  | BMK-03-PS      |
| 5 Gallon Kit* | BMK-05-PS      |



\*5-Gallon Kit is supplied in a 3-gallon (Part A) bucket and a 6-gallon (Part B) bucket. Contents of 3-gallon bucket are poured into 6-gallon bucket for mixing with supplied mixing blade for 1/4" drill.

Also available: PadCrete<sup>™</sup> structural foam for pad transformer stabilization.



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