



REFRACTORY DEPOT, Inc.

P.O. Box 26188
Collegeville, PA 19426
Phone: 610-308-5449
Fax: 610-831-0766

GUNITING INSTRUCTIONS FOR CASTABLES

Storage:

Store material in a 60°-85° F (16-29° C) environment for at least 48 hours prior to use. Do not store material in direct sunlight or in areas that include high humidity. The environment must be dry.

Water:

1. Water must be clean, fresh and potable (clean enough to drink).
2. Refer to the data sheet for the correct amount of pre-damp water.

Equipment:

1. All tools and equipment must be clean, especially mixers and guns.
NOTE: Portland Cement will make cement bonded castables flash set
2. Refractory paddle mixer should be used for pre-dampening.
3. Double Chamber or Rotary Guns are recommended.
4. Air Compressor: 450 – 750 cfm, 100 psi; cfm required will be dependent on the material gunned and the length of hose, including the vertical distance.
5. Water Pump: water pressure should be 100 psi minimum
6. Nozzle: Hamme, Double Bubble
7. Water Ring: 8 or 16 hole (8 only recommended for insulating castables), fan type with 0.004” to 0.015” gap.
8. Water Valve: 3/8” ID, 8 GPM Needle Valve or 3/8” ID Gate Valve (Gate Valve should only be used for high cement products)
9. Extension: 12” to 16” section of hose between water ring and nozzle may promote better mixing.
10. Hoses: 1.5” ID recommended

Sequence:

1. Material and ambient temperatures should be 60° - 85° F (16-29° C) during pre-dampening, gunning, and curing.
2. Dry mix material for 30 seconds.
3. Add total pre-damp water required, refer to the data sheet for correct amount. Pre-damp water will minimize dusting at the nozzle. Too much water will cause blockage in the hoses.
NOTE: Water should be added with a sprinkling can or poured down the sidewall of the mixer. Never dump large amounts of water directly into the mix. This will cause wet/dry conditions at the nozzle.
4. Mix four to five minutes for low cement, ultra low cement, and chem-bonded castables and 2-3 minutes for high cement castables.
5. Age high cement castables, as necessary, prior to placing material in gun.
6. Gun products at feed pressures shown in Table 1.

Additions:

Metal fibers may be added slowly during pre-damp mixing. Use of a shaker box is recommended to permit even distribution of fibers.

Table 1: Typical Pressures for Double Chamber Guns

Product Type	Feed Pressure
Insulating	10 psi for 1 st 50' of hose, 10 psi for each add'l 100'
High Cement	20 psi for 1 st 50' of hose, 15 psi for each add'l 100'
Low Cement	25 psi for 1 st 50' of hose, 15 psi for each add'l 100'
Ultra Low Cement	25 psi for 1 st 50' of hose, 15 psi for each add'l 100'
Chem-bonded	20 psi for 1 st 50' of hose, 15 psi for each add'l 100'

Contact your Refractory Depot, Inc. representative for answering any further installation questions.