

Technical Information

GENERAL INSTALLATION GUIDELINES FOR RESCOBOND AA-22S

- RAMMING / HAND-PACKING APPLICATIONS -

A. GENERAL:

1. Material compacted during shipment will break apart during mixing. Physical properties will not be affected. Do not use bags that contain refractory that has taken a hard set.

B. STORAGE:

1. Rescobond AA-22S is packaged in moisture resistant bags; however, it should be stored in a dry place free from excess dampness with the pallet wrapping in place. Storage on dry concrete, asphalt or other impervious surface will prevent moisture from the ground condensing under the plastic pallet cover and wetting the bags of material, which may result in loss of strength.

C. PREPARATION:

1. Use clean tools and equipment. Contamination can affect setting and strength of AA-22S.
2. Application surfaces must be clean and free of foreign matter (loose material, oil, rust, etc.).
3. Use only clean water suitable for drinking. Ideal water temperature for mixing is 35°F to 60°F (2 to 16°C). Dry material temperature should be 60-80°F (16-27°C)
4. Use a planetary, Hobart-type mixer. The "B" flat agitator and mixing bowl must be made of stainless steel. The maximum gap between the blade and the bowl at the bottom and sides should be about 0.25 inch (6 mm). Mixing efficiency and product quality may be reduced if the clearances are greater and if the mixing bowl is more than or less than 1/3 full.
5. For best results ambient temperatures should be 60-80°F (16-27°C) during installation and setting.

D. MIXING:

1. Mix only as much material as can be placed in 20 minutes. Material left in pails or other containers may develop a "false" set, making it difficult to properly place. Discard stiff material; do not remix.
2. Place the required amount of material into the mixing bowl. If required, add stainless steel fibers while dry mixing at 70 to 110 RPM.
3. With the mixer running at a speed of 70 to 110 RPM add the required amount* of water to the dry mix and continue to mix for 30-45 seconds. Increase the Mixer speed to 180 to 210 RPM and continue mixing for a total of 3 to 5 minutes or until fully mixed and proper consistency is obtained. For Hobart 20 quart mixers start mixing on Speed 1 and increase to Speed 2. For Hobart 60 and 80 quart mixers start mixing on Speed 1 and increase to Speed 3. For other mixers consult the manufactures specification sheet and mix at the appropriate RPM speeds listed above.

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- * The percent water used by RESCO or third party laboratories for qualification testing is a good guide to determine the amount needed for mixing during installation or contact your local RESCO Representative for further information.
4. Mix consistency should be dough or putty like. Slight water adjustments can be made after the mix has fully wet out. Using a water addition different from the recommended or prequalification water may result in decreased strength.
 5. Wash the mixing and placing equipment periodically with clean water, then dry. Equipment should be cleaned at least every three batches unless conditions require cleaning more often.

E. PLACING

1. Pack the material into the area being lined, working it as needed to fill all holes and eliminate air bubbles. Wood or rubber mallets, hammers, air rammers and trowels are commonly used for this step.
2. Trim excess material. Be careful not to cut too deeply into the lining or pull the material away from the anchor metal. Smooth the surface using a trowel, hardwood, or Teflon block, or the palm of the hand.
3. **DO NOT** use the palm of the hand when the mix contains stainless steel needles.
4. **DO NOT** apply water to smooth the surface.

F. SETTING

1. Do not disturb until the lining is firm to the touch. Do not subject the material to heat conditions until the AA-22S has set hard.
2. Do not spray with water or use a curing compound.
3. Heating is not always required. The linings have sufficient air-set strength to resist damage during normal handling and shipment. Contact RESCO for further details.
4. Protect the lining from the weather if it will be stored for an extended period before use.

G. HEATUP:

1. RESCOBOND AA-22S is an air setting, chemically bonded, erosion resistant refractory monolith that **does not require drying or heating prior to initial startup of the unit or vessel except under the following special conditions:**
 - The unit will be used in a wet operating environment
 - The unit will be subjected to a hydrostatic test
 - The AA-22S is installed greater than 2 inches thick.
2. Heatup procedures for RESCOBOND AA-22S can be obtained by visiting our website at www.rescoproducts.com or calling your local RESCO representative.

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H. EXTREME WEATHER PRECAUTIONS:

1. Extreme Cold Weather:

- Keep the installation area above 40°F (4°C) before installation, during installation and during setting period. For best results, dry material and ambient temperatures should be 60-80°F (16-27°C) during installation and during the setting period.
- Do not allow lining to freeze during the setting period. After the setting period, the lining may be subjected to freezing conditions, however, the castable should be at least 60°F (16°C) before dry out is started.
- If refractory is installed in a unit or vessel, all openings should be covered and sealed in order to prevent water from accumulating and freezing on the refractory.

2. Extreme Hot Weather:

- Keep the installation area below 80°F (29°C) during the installation and the setting period. High ambient temperatures will reduce working time.
- Store the dry material in a cool area prior to mixing. Keep the dry material temperature below 80°F (27°C).
- Use ice water during mixing.
- Shade or water spray the exterior surface of the unit
- Mixing equipment and placing equipment will need to be cleaned more often during installation.