

Mixing Procedures – Alcohol-Based Premix Coatings

Unless otherwise indicated, the following procedures are based on the preparation of coating in a 55 gallon open head drum. When mixing in smaller or larger tanks, the procedures are still valid, except for references to specific amounts of coating, specific measurements, or specific distances, etc. For assistance in preparing coating in containers other than a 55 gallon drum, contact your HA International representative.

These premixed coatings contain alcohol and are flammable. Never mix, use or store premix coatings or the alcohol reducer in an area where there is an open flame, sparks, or where molten metal is being poured. Observe the necessary precautions when using alcohol premixed coatings and only use if adequate ventilation is provided.

A. Using 55 Gallon Shipping Drum as Mixing Container

Step 1: Make sure that drum is properly grounded and that a non-sparking spigot is used. Unless otherwise advised by our HA International representative, only use 99% isopropyl alcohol for dilution of alcohol premix coatings.

Step 2: Carefully loosen but do not remove the bung on drum lid. Allow any pressure in drum to completely dissipate before removing drum closure and lid.

Step 3: Remove drum lid. Place a properly sized portable mixer into drum.

Step 4: Mix at full speed for 30 to 45 minutes until all solids on bottom of drum are resuspended and product is uniform.

Certain products, however, especially products containing zircon, are more difficult to mix. To facilitate the mixing of these products, the following suggestions are made:

- A) Rotate inventory and use oldest material first.
- B) Do not order more product than that can be used by foundry within 45 days.
- C) While holding a portable air mixer, insert blade approximately 12” to 18” into coating. Mix at full speed and keep angle of shaft at approximately 45 degrees and position blade to be 2” to 3” from side of drum. In this position, a very strong top to bottom mixing action will be created.
- D) After mixing as indicated above from 10 to 15 minutes, the mixer can be clamped onto the side of the drum. While mixing, a garden hoe or other tool can be used to break up the buildup of solids on the bottom of the drum.
- E) Change the position of the mixer on the drum every 10 to 20 minutes

Step 5: Stop mixer. Allow material motion to stop. Determine Baume’ and/or viscosity. If product specifications are checked by foundry, also determine coating density and coating temperature.

TECHNICAL DATA SHEET

Refractory Coating



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Step 6: If Baume' and/or viscosity are too high, gradually add small amount of alcohol. Mix 5 to 10 minutes after each addition. Recheck Baume' and/or viscosity.

Step 7: Repeat step 6 until coating is within desired Baume' and viscosity range.

Step 8: When coating properties are within desired range, mix an additional 15 minutes. Recheck Baume' and viscosity.

Step 9: When desired Baume' and viscosity range is definitely established, mixing intensity should be reduced to a gentle roll and coating is ready to be used.

Step 10: When coating is ready to be used, HA International recommends that the time, Baume', viscosity, coating density, and coating temperature be determined and that the data be recorded.

Step 11: The Baume', viscosity, coating density, and coating temperature should be checked at least once and preferably twice per shift. Changes in these properties will indicate a potential problem before it becomes serious and results in scrapped castings.

SAFE HANDLING

Chemically resistant gloves and eye protection should be used when handling or using coatings. Please refer to the Material Safety Data Sheet for additional information.

FOR EMERGENCY MEDICAL ASSISTANCE PLEASE CALL: Health and Safety Information Services 1-866-595-5738

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Mixing Procedure