

DRUM DRAINING PROCEDURES FOR MADISON'S POLYURETHANE COATINGS

INTRODUCTION

A common practice when applying Madison's plural component polyurethane coatings is to switch to new drums before the drums are empty. This makes a lot of sense because running dry on one side or both sides of a plural component system is, to put it mildly, an occasion for stress. But this certainly poses a question for us: how to drain the near-empty drums?

A very common mistake made by some applicators is to put old near-empty drums aside for days or even weeks; later the drums are drained and the residue is mixed with residue from other drums and used. Many problems could occur due to this draining practice. For example, the materials may contain resins which have passed their shelf life, or they may be contaminated with moisture or dirt; they may be partially reacted from heat, age or exposure to air. Try to spray these old dregs and now we are really talking about stress, not to mention poor quality and costly shutdowns.

We would like to suggest a better way. Simply put, we urge our customers to drain the near-empty drums right away and add the collected residue (after a quick quality check) to the material currently being used.

THE PROCEDURE

Here are the details

1. Build a suitable rack; it can be made of wood or steel. The idea is to have the drums upside down on a 45 degree angle with at least 18 inches of clearance under the drum. Put the rack in a spot that is well ventilated and protected from temperature extremes.
2. When draining drums, wear the usual protection: rubber gloves, safety glasses and a cartridge mask.
3. Put a tap in the bung of a near-empty drum. Put the drum on the rack.
4. Position a clean and dry 5 gallon steel or plastic pail under the drum. Do not use containers made of copper, copper alloys or galvanized surfaces;
5. Carefully drain the residual materials from the drum to the pail, avoiding any overflow and spill. We recommend using a piece of window screen to filter out any foreign objects or agglomerated pigments.

6. Check quality; mix an ounce of two of the product with the appropriate quantity of its counterpart (preferably from a fresh lot). If it sets in the normal setting time into a “puck” with good physical properties, if there is no sign of expansion and if gummy or unset spots are apparent, it will probably be okay to use. If you see anything unusual, call us.
7. Don't use suspicious product. Instead mix the residual materials of the “A” and “B” together in a ratio of 1:1 by volume, and discard the solid reacted products as “non-hazardous” or “common” landfill wastes.

DRAINED DRUMS ARE NON-HAZARDOUS

Drained drums are not a hazardous waste under RCRA, 40 CFR 261 and can be discarded. Whether they will be accepted by your local landfill waste facility is subject to federal, state or local regulations, ordinances or conditions of discharge permits, but we have obtained favorable rulings in every jurisdiction in which we have applied for them.

IF YOU WANT TO RECYCLE

In the unlikely event that your landfill facility does not accept your drained drums or if you want to recycle them, the drums should be neutralized with a decontamination solution before disposal or recycling. For all Madison's single component coating products and the “A” side of all Madison's plural component coatings, a denomination solution can be comprised of 90-94% water, 4-8% concentrated ammonium hydroxide (if not available, the ammonium hydroxide may be replaced with 5-10% sodium carbonate), and 2% detergent. For the “B” side of Madison's plural component coatings, the solution can be just 98% water and 2% detergent. This is preferably done outdoors or in a well-ventilated area, because heat and carbon dioxide gas may be evolved as isocyanate resins reacts with the denomination solution. Slowly spray or pour 5-15 liters of the decontamination solution into the drum, making sure the walls are well rinsed. Leave the drum for 48 hours, pour out the decontamination solution and triple rinse the empty container. The neutralized material solution is then disposed of as an alkaline solution under standard methods in accordance with your local environmental regulations.

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