



Graver Technologies

General Precoating Guidelines

Method 1: For Premix and Ecodex Products

- Insure that system is filled with water.
- Start slurry tank mixer and standard precoat recycle through equipment, with water only.
- Add one bag of product to slurry tank.
- Wait approximately 60 - 90 seconds, and then add second bag.
- Continue adding one bag, every 60 – 90 seconds, until all bags have been added.
- Continue recycle until the slurry tank is clear, indicating that all the resin has been precoated. This may take about 10 additional minutes.

Method 2: For Powdex For Premix – Add full amount, no Solution A.

- Insure system is filled with water.
- Start slurry tank mixer and add required quantity of anion PAO.
- Mix for about 5 minutes. Thorough mixing but no vortexing.
- Add required quantity of cation PCH.
- Mix for about 5-10 minutes and observe the formation of floc particles.
- Test for V/V and turbidity (supernatant clarity).
- Add Solution A, as necessary for acceptable V/V – 40-60% and clarity.
 - Typical dosage is 8-18 mL per dry kg of PAO
 - Add Solution A as a dilute solution. 1% is recommended
 - I recall that Solution A is not typically used in Europe. The “Turbo Mixer” is used to attain the same result. Mixing time is short, maybe 90 seconds or less.
- Start standard precoat recycle and wait for slurry tank to clear. Depending on valve settings, this takes 15-30 minutes.

Notes:

- Method 1 is recommended, if the equipment operation allows.
- Recommended resin dosage is 0.5 – 1 dry kg/m² of filter area.
- The more dilute the slurry concentration, the better the precoat. There is more complete element coverage and uniformity.
- If mixing is excessive, the anion capacity is depleted. Some bad plant experiences allowed mixing for 8 hours or even overnight. Capacity was reduced, virtually exhausted.
- Excessive mixing mechanically shears the floc, creating a much tighter precoat, higher differential pressure, and a short runlength. The “Turbo Mixer” is used for a short time only.
- Resin color can sometimes vary from batch to batch. This is because of color variance in the raw material bead resin.