

PTR-064-3 (Supersedes PTR-064-2)

Aquarius[™] film coating systems

Reconstitution Instructions

Materials

- Aquarius film coating system
- Water, preferably deionized or distilled, ambient temperature

Equipment

- Mixing vessel with 25–35% greater height than the liquid level; diameter of the mixing vessel should be approximately 75–100% of the height of the liquid
- Variable speed mixer (100–2000 rpm)
- Propeller stirrer

Preparation Guidelines

1. Weigh the required quantity of water into the mixing vessel.
2. Weigh out the required quantity of Aquarius film coating system.
3. Center the propeller stirrer in the mixing vessel so that it is as close to the bottom as possible (see Figure 1a).
4. Set the mixer to the fastest possible speed which maintains a vortex without drawing air into the water.
5. Add the Aquarius film coating system powder to the vortex as quickly as possible, avoiding flotation of the powder and increasing the mixer speed as necessary to maintain the vortex (see Figure 1b).
6. Maintain the mixer speed to give vigorous mixing throughout the 60 minute reconstitution period (see Figure 1c).



Figure 1. a: Propeller stirrer properly positioned in mixing vessel. **b:** Addition of Aquarius film coating system powder to the water. **c:** Mixing for 60 minutes.

Suspension Handling

Coating suspensions made with Aquarius™ film coating systems should be stirred throughout the coating process.

Usage

In general, Aquarius film coating systems can be used at varying solids contents, depending on the particular coating formulation being used. For example, Aquarius Prime film coating systems are typically used at solids contents in the range of 10–15% w/w, Aquarius Preferred HSC film coating systems are typically used at solids contents in the range of 15–20 %/w/w, while Aquarius Preferred HSP film coating systems can be used at 20–25% w/w solids in water. The maximum solids level will not only depend on the particular Aquarius film coating system selected, but also the coating equipment (such as spray gun, pump and coating machine) used. When using Aquarius Control MG film coating systems, it is common to observe small undissolved particles (i.e., micronized wax) in the dispersion. This is normal and does not affect the coating.