Finishing Tip #5 - Water based coatings, viscosity, and HVLP

Viscosity is the denseness or thickness of a coating. Solids refer to the volume of resins in the coatings. At Apollo we measure viscosity using a Zahn #2 cup, a traditional method. Seconds are counted until the stream coming out of the hole in the bottom of the cup breaks. A low viscosity coating breaks with a low number, perhaps 16 to 22 seconds, while a high viscosity coating might break at even 40 seconds.

However, a high viscosity does not mean that the coating is high in solids, or resins, the most expensive ingredient. The coating could have fillers or thickeners which keep the cost down as well as preventing the coating from flying around when it is used by alternative spray technologies such as air assisted or airless equipment.

So you can have a water based coating high in viscosity, but low in solids. Or the coating can be low in viscosity but high in solids because the coating doesn't have fillers.

When a finisher uses solvent based coatings the viscosity can be changed by adding solvent, thereby adjusting the coating to meet the fixed pressure of a turbine system. Water based coatings should not be thinned with water. Water upsets the balance in the formulated product. Therefore the finisher must use a product that sprays well with his/her turbine system. When you are ready to commit to long term use of a water based product, don't be lazy. Try different coatings. Find one that sprays beautifully, looks great, and has durability.

At Apollo we have done the work for you. We have chosen Safecoat as a top water based coating. Please click to learn the advantages of Safecoat and see why we are so enthusiastic about this high solids, low viscosity, beautiful, durable and environmentally superior coating.