

Watermiscible Blanket Wash

In recent years, watermiscible blanket washes have received more attention due to some unique benefits compared to a pure solvent based product. The main benefit is that this type of wash removes not only solvent soluble glaze such as ink, but also water soluble contaminants such as gum and paper fibers.

Watermiscible washes emit fewer volatile organic compounds (VOCs) into the air allowing for a safer work environment. In the case of our ready to use 4-1238 wash, 37% fewer VOCs are emitted than our 4-1200 Safety Zone blanket wash.

There are economical benefits to using a watermiscible blanket wash as well, the obvious benefit being lower cost per gallon when using a concentrated form which can be diluted with water. The less obvious benefit being extended blanket and roller life because of reduced rubber oxidation.

There is an important consideration when using a watermiscible blanket wash and that involves roller contamination. Regardless of the type of blanket wash used, contamination is always a possibility. Traces of chemicals left in the rollers react with inks, fountain solutions, plates and the rollers themselves leading to problems such as swollen rollers, stripping emulsification and plate blinding.

Watermiscible blanket washes contain surfactants which help the water and petroleum solvents mix together better and allows for better wetting due to lower surface tension. If not flushed from the system, however, these surfactants can contaminate the ink and subsequently get deposited on the plate image. This causes the image area to become water-receptive rather than ink-receptive leading to a condition known as plate blinding.

It is recommended that the press operator follow-up the last application of blanket wash with a warm water wash to thoroughly remove the surfactants. Flushing the ink train and blanket with clean water can also be beneficial following a solvent (petroleum) wash, since it helps remove paper and fountain solution contaminants.