

Improper Storage

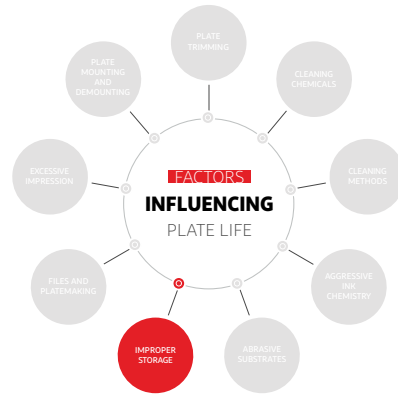


Plate Storage that Saves

Many printers save used plates that were not damaged during production to be used on future orders. It is important that the plates be stored correctly and under appropriate conditions to ensure they are still usable once removed from storage. Below are some good guidelines to follow when it comes to plate storage:

- Cleaned and dried completely
- Plates should be protected from any external influences
 - Temperature Extremes (40-90°F are good) , ambient light (UV), ozone sources, weight applying pressure onto plate
- Store flat when possible or roll plate face outward
 - Do not stack over 6" high as plates can emboss from weight of all plates stacked on top
 - Interleave with Foam on face (foam used in raw plate shipping boxes work great)



Damage to plates will occur when plates stacked too high and without foam as seen here



Plate should be rolled face outward with foam to reduce plate lift on press



Yellow side of plate has been exposed to ambient UV light over long period in storage

High Ozone

One external influence that many don't think about when it comes to plate storage is ozone presence. Very small amounts of ozone is in the air everywhere, while there are higher ozone levels found near devices with electrical discharge such as press drives, forklift chargers, and power converters. It is important that plates are not stored near devices that might increase levels of ozone in the air. You can tell if a plate has been exposed to higher ozone levels if you see very small cracks on the plate surface that all run in the same general direction.

These cracks will be more obvious in plates that are stored on plate sleeves/cylinders. If plates are stored flat, then the cracks can be seen if you bend the plate around a cylinder. High temperature in the storage area will amplify the impact that ozone has on the photopolymer.



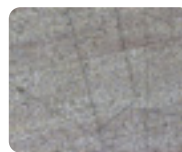
These small cracks are all running in the same general direction which tells us they were caused by high ozone levels in the air.

Solvent Entrapment

One of the most common mistakes we see with storage is solvent entrapment. Solvent entrapment happens when plates are stacked before allowing to dry completely. The photopolymer can absorb certain solvents/chemicals found in inks and cleaners. You need to be sure that all of these solvents are completely evaporated from the photopolymer before stacking or rolling the plates for storage. Be careful not to stack plates right after cleaning without first letting the plates dry completely. Not following these steps can result in plates getting damaged.



This is what Solvent Entrapment looks like between two plates



Solvent Cracks seen under a microscope

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