

# Hot Melt Preventative Maintenance Guide

Prevent adhesive char and extend the life of your equipment by following these adhesive dispensing equipment preventative maintenance measures.

## WHAT IS CHAR?

Char is burnt organic material that starts as a gel, which anchors to the tank walls or hose interior, before degrading further. The gelling results in an increase in viscosity of the hot melt. This increase compromises the application consistency of the hot melt, and consequentially, the bond performance. Char is caused by a combination of: Heat, oxygen, contaminants and time.

## CHAR PREVENTION

RECOMMENDATION	REASON
Prevent contaminants from getting into glue	Contaminants, especially paper dust, can contribute to charring
Keep the melt tank full and closed	Limits oxygen exposure to prevent char
Don't overheat glue	Running too hot accelerates adhesive degradation
Don't allow glue to sit and cook when idle—use tank temperature setback or turn unit off	Frequent extended sitting and cooking at high temperature accelerates adhesive degradation
Use tank and inline filters	Helps capture contamination, gels and char
Purge through the tank drain port monthly	Flushes out contamination and char
Clean out tank interior every six months	Removes foreign contamination
If char is already in your hoses, minimize moving them—especially when cold	Char can break off hose interiors especially at room temperature when the hot melt has shrunk

## FACTORS AFFECTING BOND INTEGRITY

Fully drain and clean out hot melt tanks at LEAST twice per year

- Quarterly if possible

Purge the tank at LEAST quarterly

Change tank filters quarterly

- Spot welding can burst (shown in picture to right)

Char will contaminate tank/hose/gun

- Remove foreign objects as soon as safely possible
- Metals and plastics can degrade and cause char to build up in the tank



Worn tank filter



## NOVEL TANK CLEANING METHOD

Removing char from the tank is crucial for mitigating its movement to the hoses and applicators, which are much harder to clean, internally. AJ recommends performing this method during scheduled downtime since it requires several hours for the adhesive to properly cool, although it requires very minimal active work for the maintenance team. **NOTE:** this method is suggested for tanks with accessible reservoirs, and not tank-less and/or melt-on-demand units.

**!** Remember to use safety glasses (with side-shields), heat-resistant gloves and tools with long extension when working with and placing items into and out of hot melt tanks.

