

# WHAT TO DO AND WHAT TO AVOID FOR TROUBLE-FREE BONDING

### Do the following:



Keep the machine clean and clear up any contamination as soon as possible



Check the application temperature frequently



clean downs and routine maintenance checks



Top up the tank regularly, little and often



Reduce tank temperature when idle



Keep glue tank lid closed when and where possible

### Avoid the following:



Where possible, do not add fresh adhesive to burnt adhesive



Allowing the glue tank to run down too far or worse empty completely



Mixing different adhesives. Always purge or empty tank before adding new grade.

**NOTE:** For hot melt cleaning products, use the BAMClean range of cleaners. Scan the QR code for further information.



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### **BASIC MACHINE SETTINGS**

# Before any machine adjustments or adhesive changes take place, remember the following:

- > Take note of any current settings.
- Change one aspect at a time, noting and recording any changes.
- Always wear the correct personal protective equipment.
- Adjustments and changes should always be carried out by competent personnel.
- Always consult your adhesive supplier on the best machine settings to use.

### TO INCREASE ADHESIVE QUANTITIES:

- > Increase the length of adhesive stripe on pick up.
  - Move roller closer to the container.
- > To increase the thickness of the adhesive.
  - Move the scraper away from the roller.

### TO DECREASE ADHESIVE QUANTITIES:

- > To shorten the length of the pick-up strip.
  - Move the roller away from the container.
- > To reduce the thickness of the adhesive.
  - Tighten the scraper into the roller.



## **Labelling Troubleshooting**

### Failure to remove labels from magazine:

- > Magazine pressure may be too tight or too loose.
  - Check pressure on label magazine.
- > Hot melt may be setting too quickly.
  - Raise temperature of hot melt.
  - Alternatively, use a longer open time product to suit application.

### Label slips around container or drops at trailing end:

- > Adhesive is possibly remaining open too long.
  - Lower temperature of hot melt.
  - Use shorter open time/ faster setting product to suit application.

# Difficulty in removing labels from overlap bond of magazine end:

- Possibly due to short stoppages or by too much adhesive getting on labels and semi setting.
  - Reduce amount being pumped around system.
  - Raise temperature to get more flow.
  - Alternatively use lower viscosity adhesive.

### Fuming from rollers:

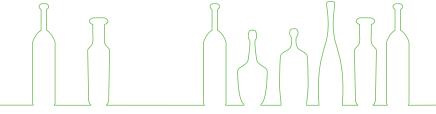
- Check adhesive temperatures and re-adjust to recommended running temperatures if necessary.
- Check machinery for any other possible causes or malfunctions.
- Alternatively, use a lower viscosity, lower running temperature product or more stable adhesive, if found to be the cause.

### Degradation in glue pots/on rollers:

- Use lower running temperature and/or product with better thermal stability.
- > Clean tank and hose and rollers and add fresh adhesive.
- Ensure routine maintenance.
- Check temperature settings are correct.
- Reduce temperature when not in use.

## Foaming in pots when labelling wet bottles:

- > Moisture getting into the adhesive system.
- > Reduce/eliminate water on bottles using air blowers/knives.
- Balance quantity being circulated to minimise amount of hot melt returned to pot.



## **Labelling Troubleshooting**

### Labels winging on overlap bond:

- > Not enough adhesive on overlap.
- Check application machinery and adjust accordingly to ensure sufficient adhesive is present.
- > Adhesive is present on overlap but has set too quickly.
- > Increase application temperature.
- Alternatively, use a longer open time product.
- Pick-up adhesive not completely covered causing uneven label tension.
- > Adjust machinery.

# No fibre tear from pick-up adhesive immediately out of labeller:

- If adhesive is "open" and not set, ensure that no slip/label drop is occurring, allow to cool before analysing bond.
- If adhesive is set, adhesive open time may need to be extended.
- > Check application temperature.

### Stringing around container from pick-up application:

- If strings are under the label and not fouling machine parts, then there is no problem.
- > Ensure that adhesive coating weight is at a lowest acceptable level.
- Raise temperature to reduce stringing.

# Overlap can be peeled back out of labeller without fibre tear:

- > Use shorter open time/faster setting adhesive.
- Check for coating on the label that prevents adhesion.
- Check adhesive adhesion to label substrates.

### Uneven application on overlap bond:

- Use lower running temperature and/or product with better thermal stability.
- Clean tank and hose and rollers and add fresh adhesive.
- > Ensure routine maintenance.
- > Check temperature settings are correct.
- > Reduce temperature when not in use.

### Squeeze out/adhesive smears/hot melt on brushes:

- > Reduce adhesive coating weight to correct level.
- > Check label alignment and lap placement.
- Check adhesive open time.

If you need further information on our range of hot-melt adhesives, visit our website:





## **Health and Safety**

### Remember

Hot-melt adhesives pose virtually no hazards to health when used in normal industrial practice, but because they are used in a molten state at high temperatures, there is a risk of burns. Skin contact with melted product should be avoided and precautions taken against accidental splashes of adhesive. The use of hinged guards and insulated hot pipes and tanks etc, minimises the risk of burns.

### Health hazards

#### Solid

Virtually odourless and harmless to skin. (However, in isolated circumstances, an allergic reaction may occur. In such cases, direct contact with the adhesive or vapour from molten adhesive should be avoided).

#### Molten

The greatest hazard occurs when the adhesive is molten. Severe thermal burns can result if skin contact occurs. Adequate protective clothing and suitable approved hand, face and eye protection should be worn.

### Vapour/fumes

Vapours given off during operation at recommended temperatures are minimal. These vapours can, in some individuals, irritate the respiratory system, but are not considered harmful. However, overheating, particularly for extended periods of time, may result in chemical breakdown of the components releasing a complex mixture of organic materials, some of which may be toxic.

### Fire hazards

#### Conditions to avoid

Overheating, especially by direct contact with naked flame, electrical sparks and static discharge.

#### Danger signs

Excessive fumes from overheating the adhesive.

#### Recommended firefighting practice

If a fire does occur, a dry chemical powder, CO2 extinguisher, or sand or earth should be used. Water should not be allowed to come into contact with molten hot-melt adhesives. Water, fog or foam must only be used to douse any surrounding material – not the fire itself.

## Notes

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