



Protection from Heat & Humidity

Die attach pastes are affected by heat and moisture. This is why controlling temperature during shipping, handling, and storage is very important.



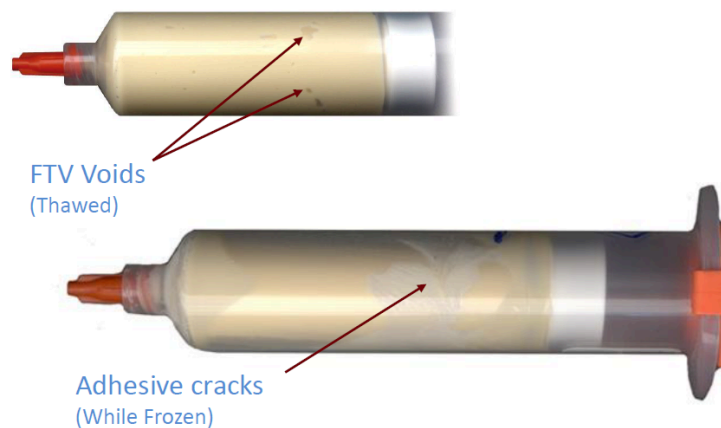
Temperature Sensitivity

Cold Storage: Die attach pastes require storage by freezing up to -40°C to prevent premature curing.

Exceeding recommended temperature guidelines when handling this material will initiate a reaction that diminishes its shelf life and can cause product and process variations. Abrupt temperature changes can also result in freeze-thaw voids.

Freeze Thaw voids (FTV)

FTVs are voids that typically occur at the adhesive and syringe interface or the adhesive and piston interface and are visible to the unaided eye. In rare cases, some adhesives have been known to crack during the freeze-thaw cycle.



Receiving Instructions

1. Inspection of goods.

- It is not recommended that individual syringes go through an incoming inspection
- The practice of removing the syringes from the syringe box and handling them to visually inspect them has been linked to an increase in freeze-thaw voiding frequency.

- If incoming inspection or quantity verification is deemed necessary, it is recommended that the syringe box be immediately placed into a -40°C freezer and allowed to equilibrate for at least 6 hours.
- Inspections can then be done in a manner that keeps the syringes as close to the recommended storage temperature (-40 C) as possible.
- Avoid prolonged handling of the syringes since it will increase the risk of FTVs.

2. Unpacking.

- Open shipping box as close to the storage freezer as possible. Only open one shipping box at a time and transfer contents to the storage freezer before moving on to the next shipping box.
- While wearing thermal gloves, transfer syringe boxes as quickly as possible to the storage freezer and allow the contents to acclimate to the storage temperature for at least 6 hours
- Temperatures in an unopened syringe box can rise enough to cause freeze-thaw voiding in as little as 5 minutes if left out in ambient temperatures.

Storage Instructions

1. Store Die Attach Paste at the recommended storage temperature.

When die attach materials are received, they should be placed into recommended cold storage as soon as possible as indicated on the technical data sheets.

Thawing Instructions

1. Transfer to Thawing area.

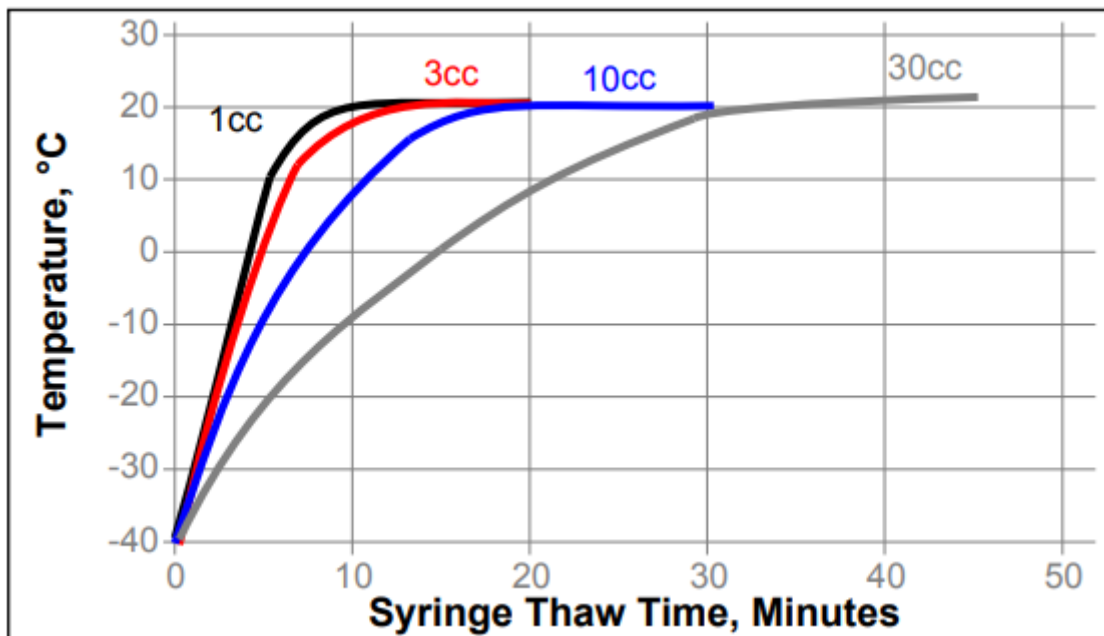
- Allow container to reach room temperature before use. Transfer the needed syringes from the syringe box to a designated thaw area using thermal gloves.
- While frozen, **only handle the syringe by the flanges** located at the top end of the syringe. This will minimize thermal shock and reduce the likelihood of Freeze Thaw Voids (FTV) from forming.



Caution: syringes are extremely brittle at temperatures around -40 C and below. Dropping the syringe could fracture the syringe wall or syringe tip.

2. Thawing.

- During thaw, the syringes should be stored in the vertical position (if possible, use a syringe holder).
- **DO NOT** open the container before contents reach 25°C temperature. Any moisture that collects on the thawed container should be removed before opening the container. Please refer to the below graph for thawing time with different syringes.



- Before use, wipe off any residual condensation.

Usage Instructions

1. Place Syringe to dispensing equipment.

- Upon opening, remove the flange end cap first and attach it to the dispensing machine. Then remove the needle end cap and attach the needle.
- If the adhesive is transferred to a final dispensing reservoir, care must be exercised to avoid entrapment of contaminants and/or air into the adhesive.

2. DO NOT re-freeze or re-use.

- Adhesive must be completely used within the product's recommended work life.
- Material removed from containers may be contaminated during use. Do not return product to the original container.