Recommended Handling of Pre-Mixed and Frozen Syringes:

1. Materials are shipped in dry ice to keep them frozen at -40°C. Once the package is received, the syringes should be moved into a freezer at -40°C or colder as soon as possible. A blue cube is included with each shipment. If the blue cube is liquid, then the shipment has not been maintained at temperatures of -40°C and we recommend the product not be utilized.

2. When handling frozen syringes, take special care to handle the product by either the needle tip or flange of the syringe only. Insulating gloves may also be worn to facilitate handling. Touching the barrel of a frozen syringe without gloves will result in the product pulling away from the barrel and cause freeze thaw voids. It can also introduce air and moisture into the epoxy that can result in dispensing and curing issues.

3. After removing from the freezer, the syringe should be placed into a test tube rack or something similar to keep the syringe in the vertical position while thawing. The flange end should be facing up and the needle end pointing down. Do not place syringes on their sides. Allow the product to thaw using the following suggested thaw times:

Syringe Size	Thaw Time (Minutes)
1cc	10 to 15
3cc	15 to 20
5cc	30
10cc	40 to 60

A stepped thaw procedure may be required to avoid free thaw voids. Place the syringe into a freezer set at 0°C for 30 to 60 minutes and then thaw per the above chart at room temperature.

4. Once the product has been thawed, the product is now dispensable and the syringe can be handled by the barrel without gloves. If the product seems too thick, wait longer for the epoxy to thaw more before continuing with dispensing.

5. The pot life of material packaged in the syringe will be similar to the pot life when packaged in the XPAK. However, the time needed to thaw the product as well as for packaging will reduce it slightly.

6. Do not refreeze the product in syringe. This will cause moisture to be trapped in the syringe and can cause freeze thaw voids. The addition of air and moisture into a syringe reduces the epoxy's usability and can cause cure problems