# Guide for Proper Receiving and Thawing of EPO-TEK® Frozen Syringes



### **Receiving Procedure**

- 1. On receipt of your shipment, check to make sure the outer shipping box (not the inner package containing the syringes) still contains dry ice. Do not open the inner syringe package.
- 2. While wearing insulating gloves, remove inner package (containing syringes) from the shipping box and place entire package into a -40°C freezer. Ideally, this package should be oriented so the syringes are vertical.



**NOTE:** Boxes left at room temperature for as little as five minutes can result in bubbles know as freeze thaw voids (FTV), which may cause dispensing issues.

3. Incoming quantity verification should be done in a manner that keeps syringes as close to the recommend -40°C storage as possible (Prolonged handling will increase the risk of FTV).



Piston

**Flange** 

Barre

**End Cap** 

TIP: Open shipping box as close to storage freezer as possible. Only transfer material to freezer one box at a time, to reduce exposure at ambient temperatures.

# **Thawing Procedure**

- 1. While wearing insulating gloves, remove one syringe from inner package stored in the freezer. Operator should never touch the syringe barrel, only the flange, as this could lead to localized heating of the material and FTVs.
- 2. Place the syringe in a vertical test tube rack at ambient lab conditions for thawing. The duration of the thaw will depend on syringe size:

Syringe Size	Thaw Time
1-3 сс	15 min
5 cc	30 min
10 cc	40-60 min

3. Be sure to wipe off any residual condensation on the syringe barrel before use.





Rack

## **Optional Steps**

**Stepped Thawing:** Instead of transferring syringe(s) from a -40°C freezer directly to ambient for thawing, place into a 0°C freezer overnight (about 16 hours) in a vertical position first. The syringe(s) can then

be removed from the 0°C freezer and placed into a vertical rack at start of a shift for quicker

thawing time and a lower risk of FTVs.

**Syringe Rollers:** As an alternative to vertically thawing, a syringe(s) may be placed onto a syringe roller. This is especially important for keeping highly filled systems homogeneous and prevents settling

during thawing.

Please consult our Technical Services Experts for any questions or assistance at: techserv@epotek.com or 978-667-3805

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