Polyimide Resin

Polyimide resin functions as an adhesive when connecting capillary columns using a Press-Tight[®] connector. Using this product is not required; however, when applied according to the instructions below, polyimide resin will help you ensure a durable connection. This product is usable up to the maximum temperature of your columns—not to exceed 350 °C. (For instructions on properly installing a Press-Tight[®] connector, refer to the Press-Tight[®] connector instruction sheet.)

Installation

- 1. Holding the column end upright, lightly score the column tubing with a ceramic scoring wafer, but do not break it.
- 2. Point the column end downward, then lightly tap the column (it should break easily) to remove the end portion. Inspect the cut. If the tubing does not break or the cut is not uniform (Figure 1), repeat steps 1–2.
- 3. Gently wipe the end of the column with a solvent like methanol or acetonitrile.
- 4. Gently insert the column end into the Press-Tight® connector until it is firmly gripped in the radial restriction. Be careful not to press too hard or the column end will crush. A continuous brown ring where the column end compresses inside the connector indicates a proper connection (Figure 2).
- 5. Follow steps 1–4 for inserting the other column end into the connector.
- 6. For both connections, apply a very small amount of polyimide resin halfway around the column tubing near the opening of the Press-Tight* connector (Figure 3). Allow 30 min to air dry.

Note: Do *not* use excess polyimide resin or apply it all the way around the column tubing. This may cause the seal to rupture during the curing process.

- 7. With carrier gas flowing, leak check the connections by first checking for bubbles in the polyimide resin, and then by using Restek's electronic leak detector (cat.# 22655) before the column is heated.
- 8. To cure the resin, heat the column by programming the GC oven from 40 °C to 150 °C at 4 °C/min (hold 30 min) to 220 °C at 1 °C/min (hold 30 min).
- 9. Periodically leak check the connections to confirm seal integrity.



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performance. The cut on the right will produce a poor seal. Figure 2: A brown ring indicates a proper seal.

Figure 1: Make a clean, square

cut for optimum connector



Storage

After being opened, the polyimide resin can be stored at room temperature for a maximum of 2 weeks with only minimal change in properties. When refrigerated at 5–8 °C, this product may be kept for approximately 4–6 months. Polyimide resin is moisture sensitive; always keep the bottle closed when not in use.

#202-04-003 Rev. date: 03/15