

## Are column oven temperatures qualified by the HSQ & PQ Kits for HPLC - FAQ

*Date 7-April-2012 Updated: 28-JUNE-2025*

### **FAQ: Can column oven temperatures be qualified using the HSQ & PQ Kits for HPLC?**

**No**, the use of column ovens are not required for Performance Qualification (PQ) of your HPLC instruments. There are no temperature protocols included in the kit.

See possible method for calibrating oven temperature below:

---

### **HPLC Column Oven Temperature Qualification Method**

#### **Objective:**

To verify that the column oven maintains accurate and uniform temperature control across a defined range.

---

#### **Materials Needed:**

- Calibrated digital thermometer or NIST-traceable temperature probe (e.g., thermocouple or RTD)
  - Insulated column blank or stainless steel tubing (to simulate a column)
  - Data logging software (optional, for continuous monitoring)
- 

#### **Procedure:**

##### **1. Set Target Temperatures:**

- Choose at least three setpoints across the operating range (e.g., 25 °C, 40 °C, 60 °C).

##### **2. Insert Probe:**

- Place the temperature probe inside the column oven, ideally inside a column blank to mimic actual conditions.

##### **3. Stabilize:**

- Allow the oven to equilibrate for at least 30 minutes at each setpoint.

##### **4. Record Temperature:**

- Measure and record the actual temperature at each setpoint.
- Repeat measurements at multiple positions (if possible) to assess uniformity.

##### **5. Evaluate Accuracy:**

- Compare measured values to setpoints.
- Acceptable deviation is typically  $\pm 1$  °C (check your lab's SOP or regulatory guidelines).

#### 6. Document Results:

- Record all data, including date, instrument ID, probe calibration certificate, and environmental conditions.

---

#### Optional:

- Perform a time-based stability test by logging temperature over 1–2 hours to assess drift or fluctuation.

→ Click [HERE](#) for PQ Kit™ and HSQ Kit™ ordering information and pictures.

Printed from the Chrom Resource Center

Copyright 2025, All Rights Apply

**MicroSolv Technology Corporation**

9158 Industrial Blvd. NE, Leland, NC 28451

Tel: (732) 380-8900

Fax: (910) 769-9435

Email: [customers@mtc-usa.com](mailto:customers@mtc-usa.com)

Website: [www.mtc-usa.com](http://www.mtc-usa.com)