

Guide to Store and Condition Cogent TYPE-C HPLC Columns - Tech Information

Preparing and Storing Cogent TYPE-C Silica™ HPLC Columns

This guide explains best practices for **initial preparation** and **proper storage** of Cogent TYPE-C Silica™ columns to maintain performance and prevent degradation—whether for overnight or long-term storage.

Storage Solvents by Mode

- **Reversed Phase (RP) or Aqueous Normal Phase (ANP):**
Store in **100% Acetonitrile** if these modes will be used next.
 - **Organic Normal Phase (NP):**
Store in **100% Hexane** for NP applications.
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Important Note on Mode Switching

Because many **organic NP solvents** are immiscible with aqueous RP/ANP solvents, switching modes requires an intermediate solvent. Use **methylene chloride** (mutually miscible) for 15 column volumes before re-equilibrating in the next mobile phase. This simple 30-minute procedure prevents phase incompatibility issues.

Mode Conversion Procedures

- **RP → NP:**
 1. Pump 100% Methanol for 15 min at 1 mL/min.
 2. Pump 100% Methylene Chloride for 15 min.
Column is ready for NP equilibration.
- **NP → RP:**
 1. Pump 100% Methylene Chloride for 15 min at 1 mL/min.
 2. Pump 100% Methanol for 15 min.
Column is ready for RP equilibration.

Why TYPE-C Silica™ is Different:

Minimal water adsorption allows fast equilibration between organic/aqueous phases and pH changes—much quicker than Type-A or Type-B silica columns.

Critical Storage Guidelines

- Store at room temperature—never refrigerate or heat.
 - Never let the column dry out.
 - For RP use, do not store in DI water without 0.1% formic acid.
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Storage Procedures

For RP or ANP Use

- **Overnight:**
 1. Flush with **8–10 column volumes of 100% Acetonitrile**.
 2. Cap both ends securely with provided plugs.
- **Long-Term:**
 1. Flush with **15–20 column volumes of 100% Acetonitrile**.
 2. Cap ends and return to original box.
 3. Store at room temperature.

**** Diamond Hydride™ columns have a special storage protocol, given click [HERE](#).**

For Organic NP Use

- **Overnight:**
 1. Flush with **8–10 column volumes of 100% Hexane (or other non-polar solvent)**.
 2. Cap ends securely.
- **Long-Term:**
 1. Flush with **15–20 column volumes of 100% Hexane**.
 2. Cap ends, return to box, and store at room temperature.
 3. **Label the column for NP use and note the solvent inside**

