

# Packed Column for Gas Chromatography

## INSTRUCTION MANUAL

This product is a separation column for gas chromatography.  
Please read notes and then use the product.

### 1. Cautions

Use the product directly without aging of the column when description on the label is shown as Packed (Pre-conditioned) and Packed (pre-tested). Please condition and use the column in accordance with the aging procedure when mentioned as packed (non-conditioned).

Avoid the installation of the column when the injection and detection port are high temperature. In the case of the column packed with PEGs packing material, please connect the column below 100 °C.

Flow the carrier gas immediately after install the column. It takes about ten minutes to replace air the column with the carrier gas completely. And then elevate the temperature of each port of the apparatus up to the analytical proper condition.

The highest analytical temperature ( aging temperature ) of the column is shown in the label. Do not raise the temperature of the column oven over the highest conditioning temperature.

Never stop the carrier gas when the column temperature is high. The column coated with PEGs will be damaged by the oxidization of stationary phase. For consecutive running analysis, the carrier gas is recommended not be stooped.

Take the column away from the apparatus after confirming 0 kg/cm<sup>2</sup> at the pressure of injection port in order to avoid flying of packing material by the pressure.

A glass column is easy to fragile. A please handle with care.

A stainless column is not damaged, however do not give a strong shock. Packing material in the column might break.

When you use your column again or not obtain a good base line, remove the sample residue by aging the column again.

### 2. Aging procedure

Please confirm the temperature below 100°C of injection port, when you connect the column to it. Never connect a column to detector.

Set the carrier gas at the proper flow rate ( 50~60ml/min ). After filling with carrier gas, set the initial temperature of column oven to 40~50°C and then elevate the column temperature at the program rate of 2°C/min to the maximum temperature described on the label.

The conditioning of the column is usually enough for 15~20 hours. Do aging of 40~60 hours when you use the low concentration silicon phase column for high sensitive detection.

Confirm the temperature of the injection port below 100°C and that of the column oven is room temperature, stop the carrier gas and remove the column from an apparatus after confirming the pressure of the column inlet is 0 kg/ cm<sup>2</sup>.

Exchange the silica wool in the column exit side with new silica wool. Keep it with caps both ends of the column in the cool dark place if you do not use it.



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