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OPERATING CONDITIONS and SPECIFICATIONS

TSKgel Top-Off

Part Numbers:	0006819	TSKgel SW Top-Off	1 g wet gel	for all 7.5 mm and 8.0 mm ID SW columns	10 µm
	0008035	TSKgel PW_{XL} Top-Off	1 g wet gel	for PW _{XL} and DNA-PW	10 µm
	0008544	TSKgel SW_{XL} Top-Off	1 g wet gel	for all SW _{XL} columns	5 µm

In addition to the instructions on these pages, also refer to the Instruction Manual and the Operating Conditions and Specifications sheet that came with the separation column.

A. OPERATING CONDITIONS

1. Shipping Solvent: TSKgel SW-type top-off gels are shipped as a suspension in water containing 0.05% NaN₃. PW-type top-off gels are slurried in water.
2. Other Parameters: Consult the Operating Conditions and Specifications sheet of the SW or PW gel filtration column for recommendations about what conditions to use and which ones to avoid, how to clean the column (packing materials) and how to store it.
3. Guard Columns After repairing the void at the column top with TSKtop-off gel, protect the separation column with a guard column. It will greatly reduce contamination of the column due to sample, mobile phase or HPLC system components.

B. HOW TO FILL THE VOID

Put the column in a vise or any other device that can keep it steady. Take the endfitting off the top of the column. Establish that there is indeed a void and, using a pipet or medicine dropper, drain the mobile phase until it just covers the top of the packing. Now proceed as follows.

1. Clean the metal end fitting which includes the frit by sonication in a 6 M HCl solution. Wash with excess water. The frit in a glass column end fitting can be cleaned by sonication in a 0.2 M NaOH solution.
2. Put the fitting in a laboratory clamp with the frit pointing up. Attach tubing from an aspirator or other gentle vacuum source to the 1/16" inlet of the fitting and apply suction. This set-up will be used to remove the liquid from the gel.
3. Suspend the gel slurry in mobile phase and pour enough into the fitting. If needed, use a spatula to transfer the packing from the container to the fitting. Note: thoroughly wash H-type Top-Off gel to remove all traces of water and methanol before proceeding with the next step
4. Continue filtration of the top-off gel until it is a moist cake. Transfer the cake to the column with A spatula. Stop when the packing is flush with the column exit Do not force more packing into the column.
5. Transfer the residual gel cake to a vial and clean the remaining packing from the fitting. Wet the packing at the column top with mobile phase before putting the fitting back onto the column
6. Start the pump at a low flow rate and gradually increase to the normal setting. Evaluate the column with a standard sample.
7. Repeat the above steps if the resolution is not satisfactory. If the results are still not good, then replace the column with a new one.

