

# Product Specification Sheet

Product Name: Zetadex-25 CM		
Weak cation exchanger with carboxymethyl groups		
Trade Name:	CM-Z25	Harmonized Tariff Code: 39139000990
Catalog Number:	TM-0203	
CAS Number:	9004-54-0	

Lot Data	Specification	
Dry Particle Size:	50 – 150 µm (>80% <sub>m</sub> )	
Water Regain:	3 - 5 ml/g	
Swelling:	6 - 8 ml/g	
Capacity:	4 – 5 meq/g <sup>1</sup>	
Appearance:	White solid powder	

<sup>1</sup> Determined by direct titration

## Application Note

Zetadex-25 CM is a weak cation exchange matrix. It is composed of Zetadex-25 Medium that has been derivatized with carboxymethyl groups.

## Hydrating the Resin

Zetadex-25 CM is provided as a dry powder. To hydrate the resin, weigh out the amount of dry powder required and carefully add to the desired binding buffer. The amount of swelling will be dependent on the buffer used. Generally, 1 g dry powder Zetadex-25 CM will result in a final gel volume of 5 to 7 ml. Use a 1.5- to 2-fold excess of hydration buffer. The pH of the hydration buffer should not differ to that used in the purification. Hydration buffer should contain identical counter ions as those used for binding. Allow 48 hours of swelling at room temperature or 2 hours at 100°C for completion. Avoid vigorous stirring. Do not use a magnetic stirrer. Degas before use.

## Filling and Packing Columns

Filling a column requires that the slurry be not too thick as to retain air bubbles. A settled gel volume to buffer volume ratio of 3:1 is optimal for this purpose. The remaining buffer may be used later for column packing.

To fill, pour the Z-25CM slurry into a tilted column. Alternatively, a funnel may be used, with the tip of the funnel touching the inside wall of the column to prevent splashing of the slurry. A gel reservoir or column extension is desirable for filling the whole column in a single operation. To finish packing the gel bed, a peristaltic pump may be employed. Use as high a flow rate as possible without deforming the beads.

## Precautions for Safe Handling

As part of good industrial safety and personal hygiene, avoid all unnecessary exposure to the chemical substance and ensure prompt removal from skin, eyes and clothing. Wear gloves when handling. Keep container tightly closed. Suitable for any general chemical storage area.

Bead structure:	Cross-linked spherical dextran composite
Ligand:	Carboxymethyl
Total ionic capacity:	4 – 5 mmol / g dry material
Bead size (Dry):	50-150 µm
Bead size (Wet):	90-280 µm
Chemical stability:	All commonly used aqueous buffers, including 20% Ethanol, 8M urea and 6M guanidine HCl.
Physical stability:	Volume changes due to changes in pH or ionic strength.
pH stability:	2 to 13
pH working range:	6 to 10
Autoclavable:	121°C, 0.1 M NaCl for 30 minutes.
Storage:	4 to 8 °C. DO NOT FREEZE.
Shipping:	Ambient.

For laboratory use only, not for drug, household or other use.