

# Shodex™



## HPLC Columns

### MANUAL

### RSpak DE-213

**SHOWA**  
**DENKO**  
EUROPE

Columns manufactured by Showa Denko K.K Japan  
Made in Japan

**Shodex HPLC Columns**  
Europe, Middle East, Africa, Russia

For technical support please use  
contact details shown below:

**SHOWA DENKO EUROPE GmbH**  
Shodex Business  
Konrad-Zuse-Platz 3  
81829 Munich, Germany

E-mail: [support@shodex.de](mailto:support@shodex.de)  
Phone: +49 (0)89 93 99 62 37  
[www.shodex.de](http://www.shodex.de)

# Operation Manual

## Shodex™ RSpak™ DE-213

(Please read this manual carefully before using the column to ensure performance and life.)

### 1. Introduction

Shodex RSpak DE-213 is a high-performance HPLC column for adsorption/partition chromatography. The column is suited for the separation of watersoluble substances.

### 2. Specifications

Packing material:	Polymethacrylate gel.
Column size:	2 mm $\phi$ x 150 mm.
Theoretical plates:	8,000 minimum (0.6% Di-n-butyl ketone, 3 $\mu$ l).
Solvent packed:	CH <sub>3</sub> CN/H <sub>2</sub> O (50/50 vol.).
Endfitting:	Internally-threaded type, No. 10-32 UNF.
Column material:	SUS 316.
Max. flow rate:	0.4 ml/min.
Max. pressure:	12.0 MPa.
Usable temperature:	Room temperature ~ 60°C.
pH range:	2 ~ 12.

- Regarding other analytical conditions, please refer to the Shodex operation manual for RSpak DE-413 series.