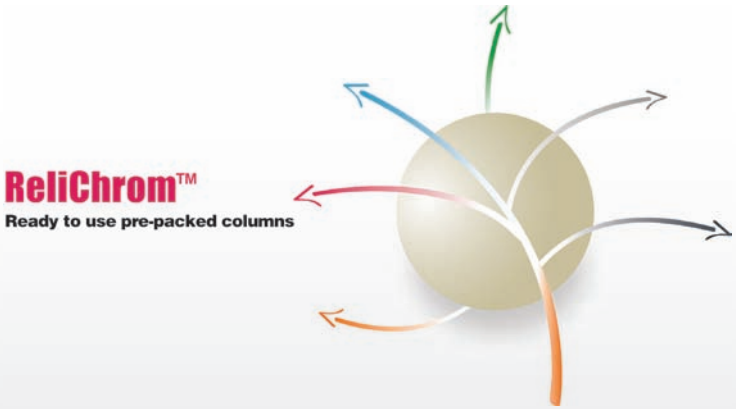
ReliChrom™

Ready to use
pre-packed columns



Resindion S.r.l.

A Subsidiary of MITSUBISHI CHEMICAL

www.resindion.com

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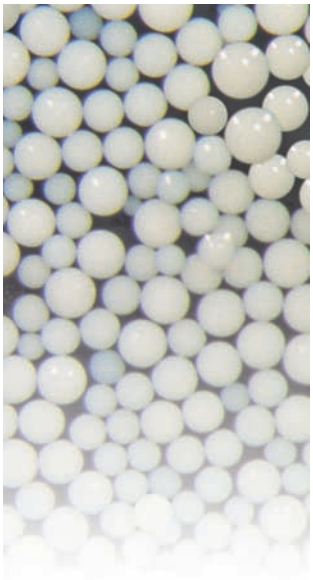


Typical features

ReliChrom™ pre-packed columns have been developed by Resindion to provide a practical and reliable tool to screen **ReliSorb™ SS** highly porous polymeric matrices in chromatographic bioseparations.

ReliChrom™ columns have been conceived for a possible direct connection to almost all standard LC and HPLC systems through UNF 10-32 male (1/16" male) fittings. Each column contains 5 ml of packed resin and the resin bed height is 100 mm.
These dimensions represent an excellent solution for the development of optimized purification methods.

ReliChrom™ column hardware is designed for a max operating pressure of 30 bar (430 psi) and for a 5 - 60 °C temperature range in operation.
Overall column dimensions are 11.5 mm (8 mm ID) x 135 mm (100 mm HR); each column is equipped with 17 µm frits.

All the components of **ReliChrom™** columns are made of polymeric materials: polypropylene (PP) and high density polyethylene (HD-PE).

ReliChrom™ columns are chemically stable in all pH range (1 - 14), in high salt concentration buffer and in common solvents (avoid use of strong oxidizing agent and halogenated solvents).
Proper plug-stoppers are used to grant the packed media stability during storage time.

ReliChrom™ columns characteristics

ReliSorb™ SS* packed volume:	5.0 ml
Resin bed depth:	100 mm
ReliSorb™ SS particle size range:	50 - 150 µm
Operating pH range:	1 - 14
Operating temperature range:	5 – 60 °C
Storage temperature range:	5 – 30 °C (4 – 6 °C once used)

* **ReliSorb™** are also available in bulk in the following particle size: SS (50-150 µm), standard (75-200 µm) and EB (200-500 µm).

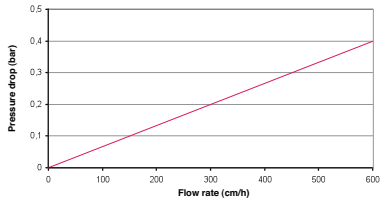
Characteristics of ReliChrom™ packed columns

NAME	FUNCTIONAL GROUP	IONIC FORM AT DELIVERY	Min. ION EXCHANGE CAPACITY (meq/ml)	BASIC APPLICATION	DYNAMIC BINDING CAPACITY (DBC) BSA (mg/ml)	Lys[c] (mg/ml)	Papaine[d] (mg/ml)
CM400/SS	Carboxyl	H^+	0.15	CEX	—	min. 30	—
SP400/SS	Sulphopropyl	Na^+	0.10	CEX	—	min. 40	—
DA400/SS	Tertiary amine	free base	0.30	AEX	min. 30[a]	—	—
QA400/SS	Quaternary ammonium	Cl^-	0.30	AEX	n. a.	—	—
IDA400/SS	Iminodiacetic	Ni^{2+}	100 (µmol/ml Ni^{2+})[1]	IMAC	—	—	10
BU400/SS	Butyl	—	—	HIC	min. 30[b]	—	—
PH400/SS	Phenyl	—	—	HIC	min. 30[b]	—	—
OD400/SS	Octadecyl	—	—	HIC	min. 20[b]	—	—

[1] Ni^{2+} ionic form is applied only for ReliChrom™ pre-packed columns; different ionic forms are also available upon request.
[a] Feed solution: 10 g/l BSA in 20 mM TRIS - HCl buffer, pH 7; flow rate = 150 cm/h
[b] Feed solution: 10 g/l BSA in 20 mM phosphate buffer, pH 7 + $(NH_4)_2SO_4$ 2 M; flow rate = 150 cm/h
[c] Feed solution: 8 g/l Lysozyme in 20 mM sodium acetate buffer, pH 5; flow rate = 150 cm/h
[d] Feed solution: 20 g/l Papaine crude extract in 20 mM phosphate buffer, pH 7.2 + NaCl 200 mM; flow rate = 150 cm/h

Supply conditions:
- IEX and IMAC columns: EtOH 20% aqueous solution + NaCl (final concentration 150 mM)
- HIC columns: EtOH 20% aqueous solution

Pressure drop in water at 25 °C



Column dimensions:

i.d.	= 0.8 cm
length	= 10 cm
area	= 0.5 cm^2
ReliSorb™ SS packed volume	= 5 ml

Handling and storage

- Solutions to be treated, eluents, regenerant and storage solutions should always be freshly prepared, filtered (0.45 µm membrane filter) and degassed.
- Prior to connecting the column to any liquid supply, remove air bubbles from the inlet tube.
- Before the column first use it is recommended to measure, at various flow rates, the pressure drop on the ReliChrom™ induced by the chosen eluent, in order to obtain reference data.
- Set the maximum linear flow rate to a value appropriate to the resin considered.
- A significant pressure drop increase after repeated cycles and under the same conditions could indicate the presence of impurities: in this case the column has to be submitted to standard regeneration or cleaning in place procedures.
- After the operation and in case of long storage, the regeneration step has to be followed by a resin conditioning with storage solution. After use, ReliChrom™ columns have to be stored at 4 – 6 °C.

ReliChrom™

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Material Support File

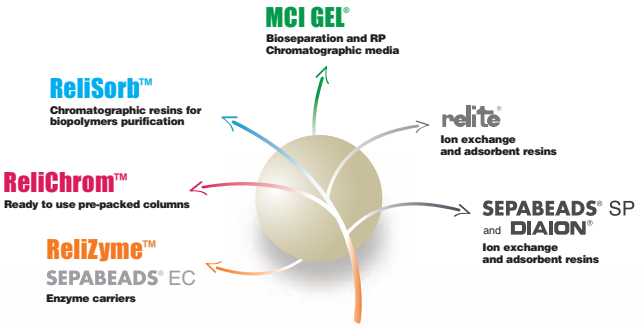
Resindion S.R.L. is an UNI EN ISO 9001:2008 certified Company. Technical and basic regulatory documents, supplied with each **ReliChrom™** delivery, are related to the Handling Instructions and Column Performance Report (HICPR).

Resindion S.R.L. can supply the information related to the **ReliSorb™ SS** packed resins (i.e. Technical Data Sheet, Certificate of Analysis, Material Safety Data Sheet).

Customer service

Resindion S.R.L. qualified technical and marketing team grants all the necessary customer assistance on **ReliChrom™** selection and application.
Please consult Resindion at: customerservice@resindion.com or technicalservice@resindion.com

Resindion Product Lines



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A Subsidiary of MITSUBISHI CHEMICAL

Resindion S.R.L.
Via Roma 55
20082 Binasco (MI), Italy
Phone: +39 02 9001301
Fax: +39 02 90090774
E-mail: info@resindion.com
Web site: www.resindion.com

Mitsubishi Chemical Corporation
Palace Building
1-1, Marunouchi 1-chome, Chiyoda-ku
Tokyo 100-8251, Japan
Phone: +81 3 6748 7146
Fax: +81 3 3286 1209
Web site: www.diaion.com

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