Organic SEC (GPC) Columns : HFIP

Features

HFIP-800 ● Columns exclusively for use with hexafluoroisopropanol (HFIP)

HFIP-600 ● Rapid analysis, solvent saving type

● Standard columns

HFIP-800 series

Product Code	Product Name	Plate Number (TP/column)	Exclusion Limit (PMMA)*	Particle Size (μm)	Maximum Pore Size (Å)	Column Size (mm) I.D. x Length
F6028530	**GPC HFIP-803**	≥ 12,000	30,000	10	500	**8.0 × 300**
F6028540	**GPC HFIP-804**	≥ 12,000	100,000	7	1,500	**8.0 × 300**
F6028550	**GPC HFIP-805**	≥ 10,000	1,000,000	10	5,000	**8.0 × 300**
F6028560	**GPC HFIP-806**	≥ 10,000	(10,000,000)**	10	10,000	**8.0 × 300**
F6028590	**GPC HFIP-806M**	≥ 10,000	(10,000,000)**	10	10,000	**8.0 × 300**
F6028570	**GPC HFIP-807**	≥ 4,000	(100,000,000)**	18	20,000	**8.0 × 300**
F6700500	**GPC HFIP-LG**	(guard column)	–	15	–	**8.0 × 50**

* The columns with 'M' at the end of column names are mixed-gel column capable of analyzing samples over a wide range of molecular weight distribution.

Base Material : Styrene divinylbenzene copolymer
Shipping Solvent : Hexafluoroisopropanol (HFIP)
*PMMA : Polymethylmethacrylate
( )** Estimated value

● Rapid analysis downsized columns

HFIP-600 series

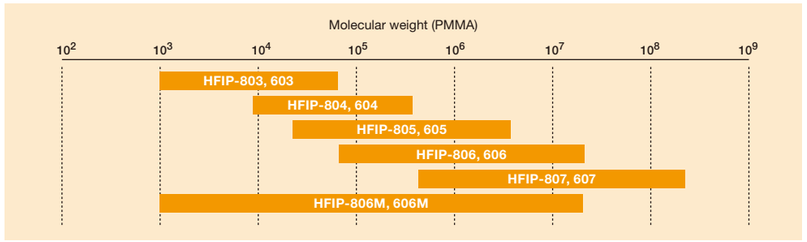
◎Use of the HFIP-600 series with semi-micro type devices is recommended.

Product Code	Product Name	Plate Number (TP/column)	Exclusion Limit (PMMA)*	Particle Size (μm)	Maximum Pore Size (Å)	Column Size (mm) I.D. x Length
F6021030	**GPC HFIP-603**	≥ 12,000	30,000	3	500	**6.0 × 150**
F6021040	**GPC HFIP-604**	≥ 12,000	100,000	3	1,500	**6.0 × 150**
F6021050	**GPC HFIP-605**	≥ 5,000	1,000,000	10	5,000	**6.0 × 150**
F6021060	**GPC HFIP-606**	≥ 5,000	(10,000,000)**	10	10,000	**6.0 × 150**
F6021080	**GPC HFIP-606M**	≥ 6,000	(10,000,000)**	10	10,000	**6.0 × 150**
F6021070	**GPC HFIP-607**	≥ 3,000	(100,000,000)**	18	20,000	**6.0 × 150**
F6700511	**GPC HFIP-G**	(guard column)	–	8	–	**4.6 × 10**

* The columns with 'M' at the end of column names are mixed-gel column capable of analyzing samples over a wide range of molecular weight distribution.

Base Material : Styrene divinylbenzene copolymer
Shipping Solvent : Hexafluoroisopropanol (HFIP)
*PMMA : Polymethylmethacrylate
( )** Estimated value

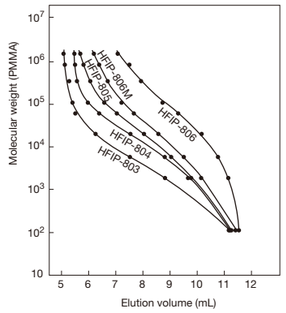
Molecular weight range with PMMA (eluent : HFIP)



Calibration Standards See page 51 for Calibration Standards

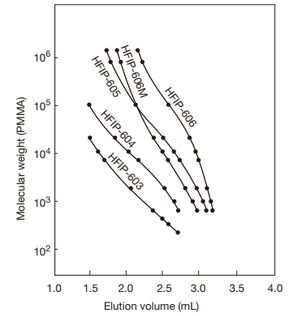
*Contact Shodex or our distributors near you for customized columns.

Calibration curves for HFIP-800 series using PMMA



Column : Shodex GPC HFIP-800 series
Eluent : HFIP
Flow rate : 1.0mL/min
Detector : RI
Column temp. : Room temp.

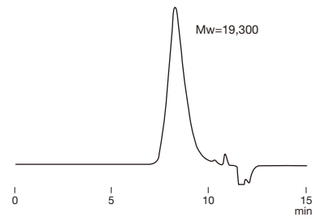
Calibration curves for HFIP-600 series using PMMA



Column : Shodex GPC HFIP-600 series
Eluent : 5mM CF_3COONa in HFIP
Detector : RI(small cell volume)
Column temp. : 40℃

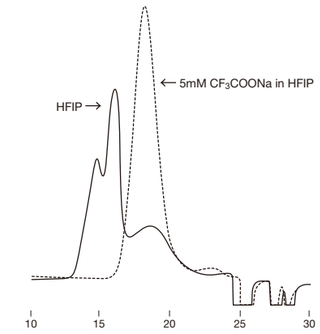
Polyethylene terephthalate (PET)

Sample : PET 0.2%, 20μL



Column : Shodex GPC HFIP-606M x 2
Eluent : 5mM CF_3COONa in HFIP
Flow rate : 0.6mL/min
Detector : RI(small cell volume)
Column temp. : 40℃

Polyamide (effects of salt addition)



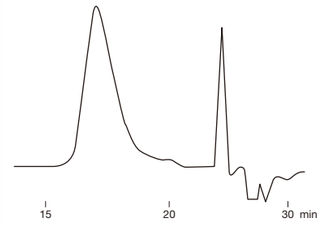
Sample : Polycaprolactum (Nylon® 6)

In SEC analysis using HFIP, some samples may yield abnormal peaks as a result of ionic interaction. In this case, ionic interaction can be suppressed by adding sodium trifluoroacetate to HFIP.

Column : Shodex GPC HFIP-806M x 2
Eluent : HFIP(solid line), 5mM CF_3COONa in HFIP(broken line)
Flow rate : 1.0mL/min
Detector : RI
Column temp. : 40℃

Polybutylene terephthalate (PBT)

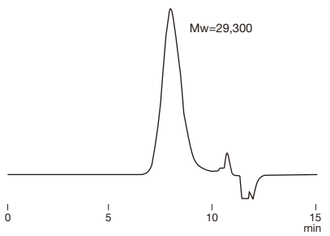
Sample : PBT 0.05%, 500μL



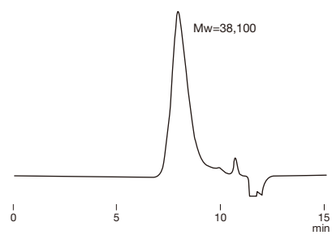
Column : Shodex GPC HFIP-805 + HFIP-803
Eluent : 5mM CF_3COONa in HFIP
Flow rate : 1.0mL/min
Detector : RI
Column temp. : 40℃

Polyamides (Nylon 6/10 and Nylon 6)

Sample : Nylon® 6/10 0.2%, 20μL



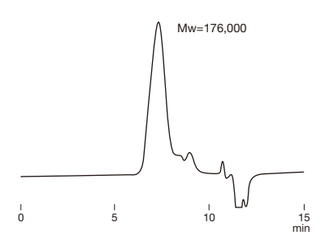
Sample : Nylon® 6 0.2%, 20μL



Column : Shodex GPC HFIP-606M x 2
Eluent : 5mM CF_3COONa in HFIP
Flow rate : 0.6mL/min
Detector : RI(small cell volume)
Column temp. : 40℃

Polyacetal

Sample : Polyacetal 0.2%, 20μL



Column : Shodex GPC HFIP-606M x 2
Eluent : 5mM CF_3COONa in HFIP
Flow rate : 0.6mL/min
Detector : RI(small cell volume)
Column temp. : 40℃