## Appli dition hrom & hrom atography

## AppliChrom ABOA-SuperOH-SEC Columns

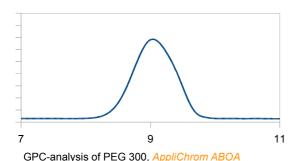
GPC/SEC-Säulen for aqueous applications

## AppliChrom ABOA-SuperOH-P columns: Your advantage through our know-how

- Optimised for aqueous GPC/SEC-separations
- Aqueous high hydrophilic polymeric base material
- Low column bleeding for low detector noise
- <sup>-</sup> 7μ particle technology (standard) for high plate counts and high resolution\*)
- Large pore volume for high resolution
- PH stable 2.5-12
- Pressure stability 30-80bar (depending on pore size)
- Temperature stability between 10-85°C
- Individual pore sizes for individual molecular weight ranges
- Multi-pore technology for a broad range of molecular sizes
- Increased lifetime of GPC/SEC columns by combination of proprietary particle and packing technology
- Service application center for method screening available in Oranienburg (Germany / Europe)

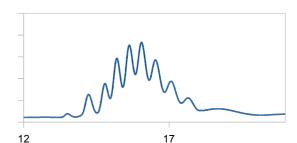
  \*) 7μ Particletechnology is standard for the small porous series 100 and 200.

#### AppliChrom GPC PEG-300 analysis



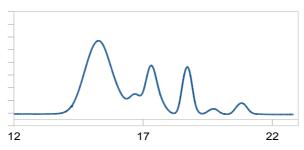
SuperOH-Pore 200, 300x8mm, 1ml/min H2O, 20µl sample, RI-detection. Part.No.: SASOH2003008

#### AppliChrom PEG-300 analysis



AppliChrom ABOA DMAc-Phil-GPC column (300x8mm) in HPLC modus for analysis of PEG300, 0.5ml/min 80/20 MeOH/H2O, 20µl sample, RI-detection.

#### AppliChrom oligosaccharide-GPC-analysis



AppliChrom ABOA SuperOH-P-100 SEC for high resolution GPC-oligosaccarid-analysis, 2 x AppliChrom SuperOH-SEC pore 100, 300x8mm, 0.5ml/min H2O, 40°C, 20μl sample, detection: RI PartNo.: 2 x SASOH1003008

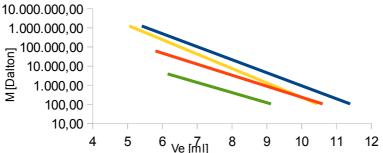


# AppliChrom ABOA-SuperOH-SEC Columns

GPC/SEC-Säulen for aqueous applications

#### Pore sizes:

Available pore sizes for different ranges of molecular size

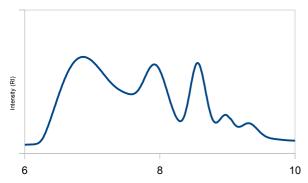


Measuring range AppliChrom ABOA SuperOH GPC/SEC-columns, 300x8mm measured in water with PEO/PEG

standards: Porosities 100, 200, 300, 400

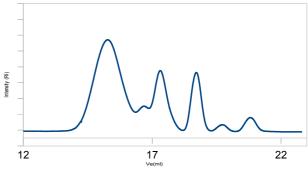
### Methodoptimisation in high resolution aqueous GPC/SEC

### Starting method



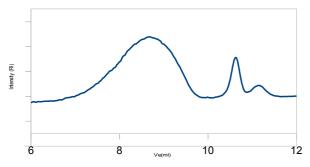
AppliChrom ABOA SuperOH- [\*\*\*]00 for high resolution oligosaccharid-analysis: 1 x AppliChrom ABOA SuperOH-P-100 (300x8mm), 1ml/min H2O, 20°C, 20μl sample detection: RI. Part.No.: SASOH1003008

### Optimised method



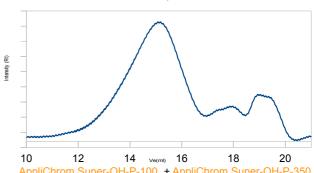
AppliChrom ABOA SuperOH-P-100 for high resolution oligosaccharid-analysis: **2** x AppliChrom ABOA SuperOH-P 100 (300x8mm), 0.5ml/min H2O, 40°C, 20µl sample, detection: RI. Part.No.: 2 x SASOH1003008

#### Pectin GPC/SEC analysis (pectin I)



AppliChrom Super-OH-P-400 GPC-column (8x300mm), 1ml/min H2O + 0.2M NaNO3, 20°C, 20µl sample, detection RI. Part.No.: SASOH4003008

#### Pectin GPC/SEC analysis (pectin II)



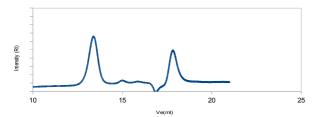
AppliChrom Super-OH-P-100 + AppliChrom Super-OH-P-350 GPC-column (je 8x300mm), total 600x8mm, 1ml/min H2O + NaKHPO4 pH 6.8 0.07M + 50mM NaCl, 20°C, 20µl sample, detection RI (sample with high content of oligomers) .Part.No.: SASOH4003008



# AppliChrom ABOA-SuperOH-SEC Columns

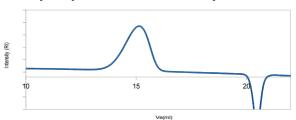
GPC/SEC-Säulen for aqueous applications

#### PEGylated proteins: GPC/SEC analysis



AppliChrom Super-OH-P-350 + 100 GPC-columns (each 8x300mm), total 600x8mm, 1ml/min 0.05%  $NaN_3$  in  $H_2O$ , RI, 20°C, separation of an approx. 5.000Da product of a PEGylated protein of approx. 100.000dalton.

#### Starch hydrolysate: GPC/SEC analysis



AppliChrom Super-OH-P-350 +  $100^{\circ}$  GPC-columns (each 300x8mm), total 600x8mm, 1ml/min 0.2M NaNO<sub>3</sub> in H<sub>2</sub>O, RI, 20°C, analysis of a 100kDa fraction

#### **Groups of analytes for AppliChrom ABOA Super-OH-P series:**

Carragen, carboxymethylcellulose, dextran, dextransulfat, hydrophilic cellulose derivatives, gelatine, guar gum, gum arabic, heparin, hyaluronic acid, pectin, PAA (poly-acrylic acid), PMA (poly methacryic acid), PEG, PEO, PVA, pullulan, sodium-alginat, xanthan, lignindegradation products \*).

\*) Pleasefeel free to contact us, we can assist you with the optimal eluentsselection info@applichrom.de

#### Part.No.:

AppliChrom ABOA SuperOH-P (porosity) <sup>a)</sup>	Separation range <sup>a)</sup>	Part.No (dimension 300x8mm) <sup>b)</sup>
AppliChrom ABOA SuperOH-P-100	100-2.500 Da	SASOH1003008
AppliChrom ABOA SuperOH-P-200	100-20.000 Da	SASOH2003008
AppliChrom ABOA SuperOH-P-250	100-70.000 Da	SASOH2503008
AppliChrom ABOA SuperOH-P-300	1-300 kDa	SASOH3003008
AppliChrom ABOA SuperOH-P-350	2,5-1.000 kDa	SASOH3503008
AppliChrom ABOA SuperOH-P-400	10-5.000 kDa	SASOH4003008
AppliChrom ABOA Super-OH-P-Screening	100 Da-1Mio Da	SASOHS3008
precolumn - AppliChrom ABOA Super-OH-P-100 (50x8mm)		VASOH100508

a) larger or different pore sizes available upon request.

#### Further AppliChrom, Application & Chromatography products:

#### AppliChrom ABOA Protesep-S

Series for SEC-separation of mainly proteins according to size (BSA, immunoglobulins,...)

#### AppliChrom ABOA Sugarsep-H/Na/Ca

Series for analylsis of sugars, alcohols and acids in water

#### AppliChrom OTU Serie (C8, C18, Phenyl, HILIC)

Series for high resolution standard separations of hydrophobic or hydrophilic substances

#### AppliChrom SPE-Säulen (C8, C18 u.a.)

For sample pretreatment and sample enrichment

#### AppliChrom SaloEx P. SaloEx DNA

For purification of proteins and DNA from low molecular substances and salt/buffers.

OEM production of liquid chromatography media and sorbents

b) further column dimensions can be prepared – please feel free to contact us <code>info@applichrom.de</code>



# AppliChrom ABOA-SuperOH-SEC Columns

GPC/SEC-Säulen for aqueous applications

### Try AppliChrom!

#### Try AppliChrom:

#### AppliChrom team:

The AppliChrom team has over 20 years experience in the development, production, quality assurance, project management and application engineering inorganic and polymeric materials for chromatography in Europe and Asia.

#### **AppliChrom** chromatography products – technology center:

The AppliChrom chromatography products and technology center is located in the German capital region of Berlin / Brandenburg. Our close proximity to leading universities and institutes enables us to constantly improve through current knowledge and needs in the fields of materials science, biotechnology, analytical techniques and process technologies. Our approach is to create innovative products with our customer's needs in mind. AppliChrom covers not only the areas of application service and column packing technology, but also the design, modification and testing ofchromatographic particles when it comes to product vertical integration The AppliChrom team consists of specialists in HPLC analysis, GPC / SEC analysis, separation technology, polymer chemistry, materials and materials science, chemistry and biotechnological downstream processing.

The AppliChrom motto is – it does not count to just think about something innovative, but to put these ideas of innovative chromatographic products into reality – and this we do in Oranienburg. Oranienburg is special to what we do as it was where F.F. Runge developed an early form of paper chromatography in 1850..

AppliChrom - Application & Chromatography has made between 2009 and 2012 a large range of high-end chromatography products for many satisfied customers. In 2012, we extended our product range by further innovative new product lines - what new product features do you need?

#### **AppliChrom Columns for GPC/SEC applications:**

**2009** Launch AppliChrom ABOA Protesep GPC / SEC column series. Designed for GPC / SEC analysis of proteins, combines high chromatographic resolution, high compressive strength and durability. Several pore sizes available.

**2010** Launch AppliChrom ABOA SugarSep column series. Developed for the analysis of low molecular weight sugaroligomers (Naform), sugarisomers (Ca-form), alcohols, and carboxylic acids (H-form). AppliChrom ABOA SugarSep combines high chromatographic resolution with long lifetimes.

**2011** Market introduction AppliChrom ABOA SuperOH-SEC column series. Designed for GPC / SEC analysis of water-soluble polymers, combines high chromatographic resolution with minimal column bleed and long column lifetime. Several pore sizes available. **2012** Market introduction AppliChrom ABOA ... - customer satisfaction with existing products and the need for new products / product lines determine growth and development of new areas. Talk to us.

#### **AppliChrom products:**

**For analytical applications:** AppliChrom HPLC / chromatography columns, SPE-catridges, desalting columns and cartridges for DNA/proteins, HILIC-columns, C<sub>8</sub>, C<sub>18</sub>, phenyl, amino,... HPLC-columns, ionexchanger columns, GPC/SEC columns

**For special applications:** A custom synthesis of special chromatography media, special reactive resins for SPE and sample pretreatment, molecular imprint media (MIP) is available for our customers.

A general warranty for the effectiveness with all analytes can not be given. In individual cases, it is recommended to discuss issues with our product specialists. Please contact us at our application lab in Oranienburg- we are at your service.

Errors and changes reserved. Products for research and development. Not checked for clinical, diagnostic or food uses. Version 09/2012.

AppliChrom®
Application & Chromatography
Dipl.-Ing.(FH) Susanne Dauwe, Germendorfer Allee 20, D-16515 Oranienburg
★+49/3301 579293, ★+49/3301 209879

#=finfo@applichrom.de, www.applichrom.de.