

# Dr. Maisch GmbH

Any Column, Any Size, Any Media

**ReproSil XR**  
eXtRa High Purity Phases



**ReproSil™ XR**  
HPLC Columns

- Highly Efficient and Perfect Reproducibility
- General Use Selectivity
- Exceptional Value

ReproSil™ XR	Specifications
Phase	Si, Amino, Phenyl, C8 and C18 (MS)
Encapping	yes
Typical Efficiency	>90,000 plates/m
Surface Area	250 m <sup>2</sup> /g , 100 m <sup>2</sup> /g
Pore Size	120Å, 300Å
Particle Size	1.5 ,3 ,3.5 ,5 ,7 and 10µm

### Choose Wisely - ReproSil XR

Dr.Maisch HPLC GmbH sets a new standard in HPLC columns. We make everything - from the silica particle to the finished product. Our streamlined manufacturing process allows delivery of the highest performance, at an exceptional value!

ReproSil XR Columns		
Part No.	i.d. x Length	Particle Size
rx15.9e.s1546	4.6 x 150mm	5µm
rx15.9e.s2546	4.6 x 250mm	5µm
rx15.9e.s1502	2.0 x 150mm	5µm
rx15.9e.s2502	2.0 x 250mm	5µm

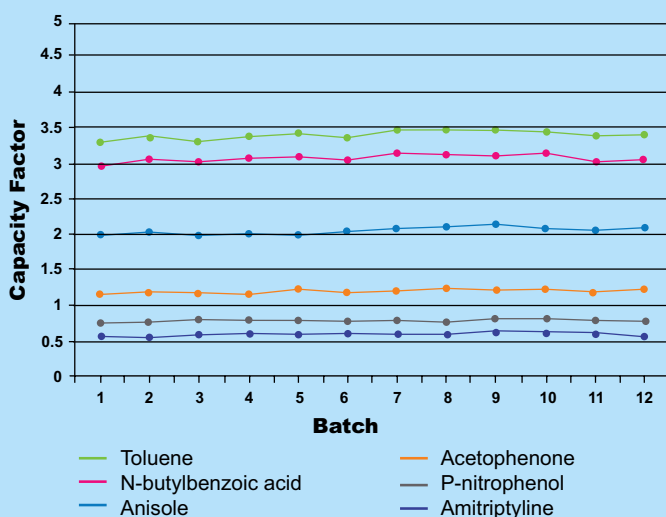
### XtRa High Quality HPLC Phases

Extra High purity silica and uniform bonded phase coverage translates to symmetrical peaks for acids/bases, and predictable reversed phase selectivity. Whether routine analysis or new method developments, use ReproSil XR columns to get premium performance without a premium price.

### Reproducible Methods Start with Reproducible Columns

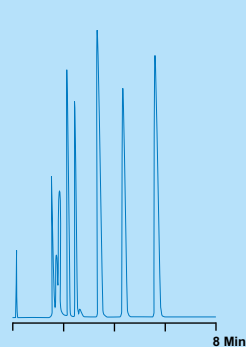
Our tightly controlled silica synthesis and bonding keep capacity factor and selectivity variations to a minimum. The advanced packing methods deliver consistently high column-to-column efficiency.

#### Highly Reproducible Selectivity



Consistent batch-to-batch capacity for acidic, basic & neutral compounds

### Standards Mix

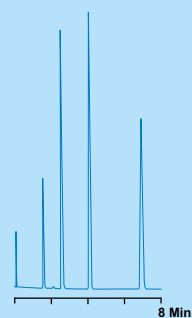


1. Nicotine
2. Quinine
3. Diphenhydramine
4. Nortriptyline
5. 2,4, Dichlorophenoxy acetic acid
6. 2,4, Dichlorophenoxy propionic acid
7. 2,4, Dichlorophenoxy butyric acid

Column: ReproSil XR 120 C18  
5µm, 150 x 4.6mm  
MobilePhase: 50% MeCN / 50% 50mM  
KH<sub>2</sub>PO<sub>4</sub> pH 3 at 35°C

Baseline resolve challenging separations

### Acids, Bases and Neutrals



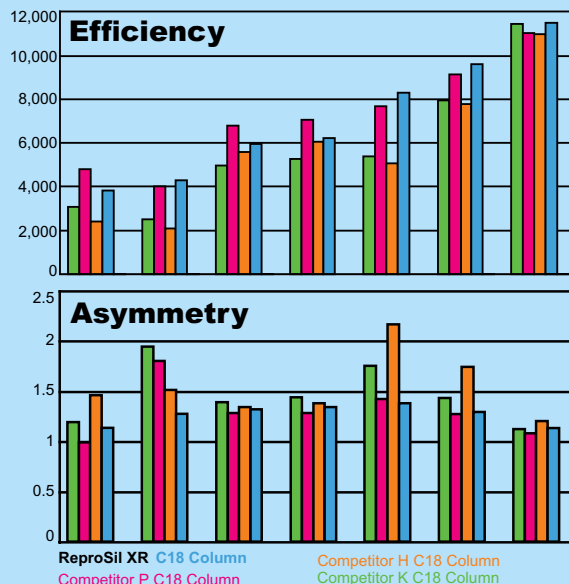
1. Uracil
2. Amitriptyline
3. Phenylvaleric Acid
4. Toluene

Column: ReproSil XR 120 C18,  
5µm, 150 x 4.6mm  
MobilePhase: 50% MeCN/50% 50mM  
KH<sub>2</sub>PO<sub>4</sub> pH 3 at 35°C

Get symmetrical peaks shapes for strong acids and bases

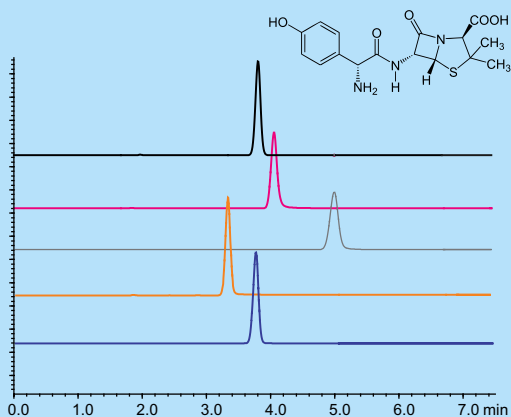
### Expect Competitive Performance

Efficient manufacturing is driving force for competitive pricing, but certainly not at the risk of non-competitive performance. ReproSil XR columns show equal or better efficiency and asymmetries for challenging base and acid components in comparison to industry leading columns



ReproSil XR columns compares favorable to leading competitor columns

## Amoxicillin (U.S.P.)

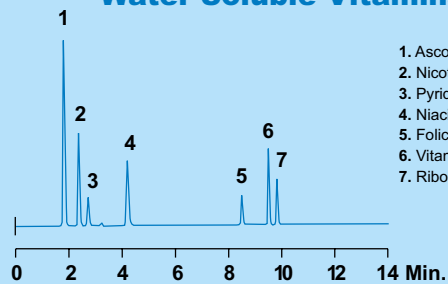


— ReproSil XR C18 Column  
 — Competitor P C18 Column  
 — Competitor G C18 Column  
 — Competitor H C18 Column  
 — Competitor K C18 Column

**Column:** ReproSil XR C18 Column, 4.6 x 250mm, 5µm  
 (Part No. **rx15.9e.s2546**)  
**MobilePhase:** Isocratic, 0.05 N monobasic potassium phosphate pH 5:  
 Acetonitrile 96:4  
**FlowRate:** 1.5ml/min  
**Detector:** UV, 230nm  
**ColumnTemp:** 30°C  
**InjectionVol:** 10µl

	USP Spec	ReproSil XR C18 Col	Comp1 C18 Col	Comp2 C18 Col	Comp3 C18 Col	Comp4 C18 Col
Ret. Time (min)	N/A	3.80	4.05	5.09	3.34	3.86
Theoretical plates	≥1700	8650	7240	6230	7060	7680
Tailing Factor	≤2.5	1.0	1.2	1.1	1.0	1.0
k'	1.1≤k'≤2.8	1.2	1.6	2.3	1.0	1.6

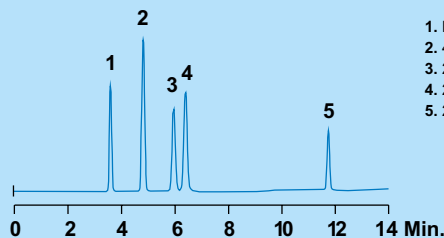
## Water Soluble Vitamins



1. Ascorbic Acid  
 2. Nicotinic Acid  
 3. Pyridoxamine  
 4. Niacinamide  
 5. Folic Acid  
 6. Vitamin B12  
 7. Riboflavin

**Column:** ReproSil XR 120 C18 Column, 4.6 x 150mm  
 (Part No. **rx15.9e.s1546**)  
**MobilePhase:** A: 0.1M NH4H2PO4 Buffer, pH4.5  
 B: Acetonitrile  
**Gradient:** (Time, %B): (0,5), (4,5), (10,40), (15,40)  
**FlowRate:** 1.0mL/min  
**Detector:** UV at 254nm  
**InjectionVol:** 2µl

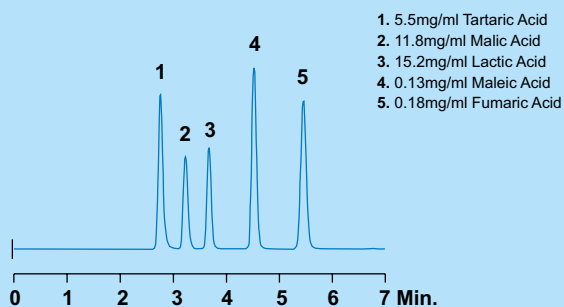
## Phenols



1. Phenol  
 2. 4-Nitrophenol  
 3. 2-Chlorophenol  
 4. 2-Nitrophenol  
 5. 2,4-Dichlorophenol

**Column:** ReproSil XR 120 C18 Column, 4.6 x 150mm  
 (Part No. **rx15.9e.s1546**)  
**MobilePhase:** A: 1% Glacial Acetic Acid in Water  
 B: 1% Glacial Acetic Acid in Methanol  
**Gradient:** (Time, %B): (0,45), (6,45) (8,60), (15,80)  
**FlowRate:** 1.0mL/min  
**Detector:** UV at 280nm  
**InjectionVol:** 10µl

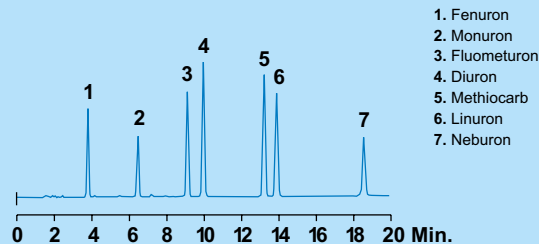
## Organic Acids



1. 5.5mg/ml Tartaric Acid  
 2. 11.8mg/ml Malic Acid  
 3. 15.2mg/ml Lactic Acid  
 4. 0.13mg/ml Maleic Acid  
 5. 0.18mg/ml Fumaric Acid

**Column:** ReproSil XR 120 C18 Column, 120Å, 5µm, 4.6 x 150mm  
 (Part No **rx15.9e.s1546**)  
**MobilePhase:** 0.025M KH2PO4(pH2.5) : Methanol, 97:3  
**FlowRate:** 0.7ml/min  
**Detector:** UV at 220nm  
**InjectionVol:** 1µl

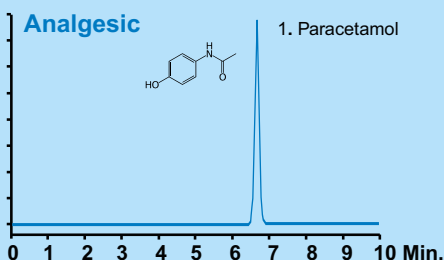
## Carbamate & Urea



1. Fenuron  
 2. Monuron  
 3. Fluometuron  
 4. Diuron  
 5. Methiocarb  
 6. Linuron  
 7. Neburon

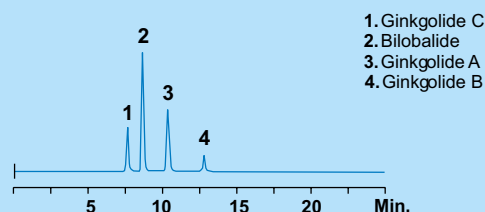
**Column:** ReproSil XR 120 C18 Column, 120Å, 5µm, 4.6 x 150mm  
 (Part No **rx15.9e.s1546**)  
**MobilePhase:** A: 0.025M KH2PO4,pH3.2 B: Acetonitrile  
**Gradient:** (Time, %B): (0,30), (20,60)  
**FlowRate:** 1.0ml/min  
**Detector:** UV at 240nm  
**InjectionVol:** 10µl

## Paracetamol Effervescent Tablets on Chinese Pharmacopeia Assay



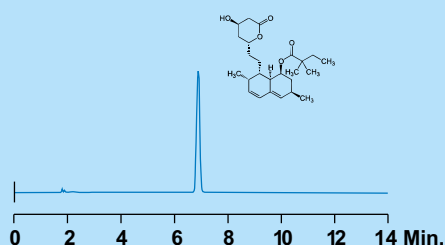
**Column:** Reprosil XR 120 C18, 5µm, 250x4.6mm  
**Mobile Phase:** Phosphate Buffer: Methanol (80:20)  
**Flow Rate:** 1.0mL/min  
**Detector:** UV at 254nm

## Folium Ginkgo



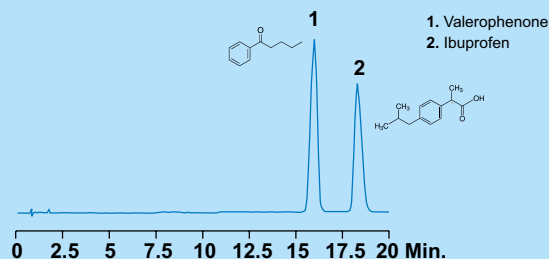
**Column:** Reprosil XR 120 C18, 5µm, 250x4.6mm  
**Mobile Phase:** Methanol: Tetrahydrofuran: Water (25:10:65)  
**Flow Rate:** 1.0mL/min  
**Detector:** ELSD

## Simvastatin Tablets (U.S.P)



**Column:** Reprosil XR 120 C18 Column, 4.6 x 250mm  
 (Part No. **rx15.9e.s2546**)  
**Mobile Phase:** 0.39% monobasic sodium phosphate pH4.5: Acetonitrile 35:65  
**FlowRate:** 1.5ml/min  
**Detector:** UV, 238nm  
**ColumnTemp:** 45°C  
**InjectionVol:** 10µl

## Ibuprofen (U.S.P)



**Column:** Reprosil XR 120 C18 Column, 4.6 x 150mm  
 (Part No. **rx15.9e.s1546**)  
**Mobile Phase:** H2O (adjusted with phosphoric acid to a pH of 2.5):  
 Acetonitrile 6.5:3.5  
**FlowRate:** 2ml/min  
**Detector:** UV, 214nm  
**InjectionVol:** 5µl

**From UHPLC**

**to PrepLC**

**fully scaleable**



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