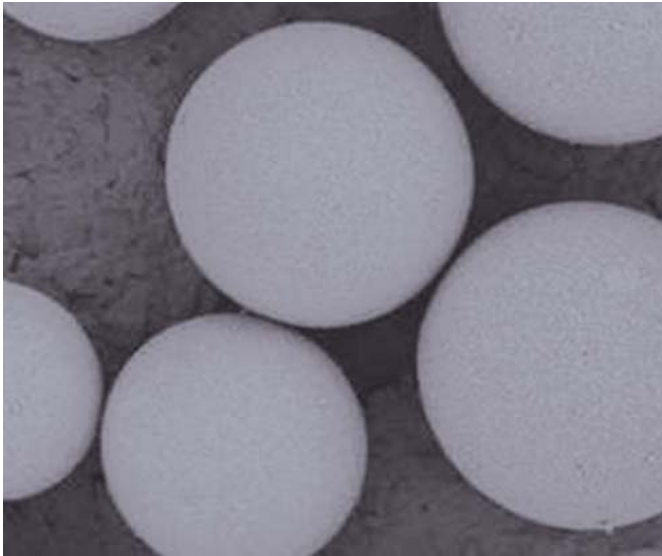
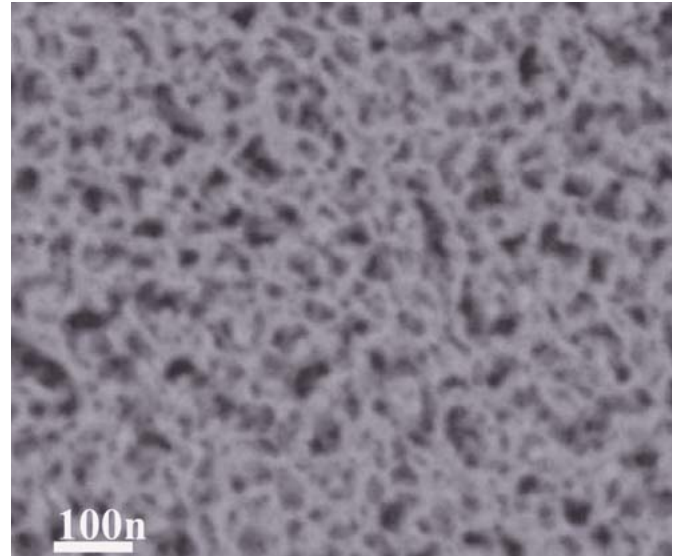


TECHNIPUR[™]



Spherical particle shape of TechniPur[™]



Uniform pore structure of TechniPur[™]

Purification Media for Process Chromatography

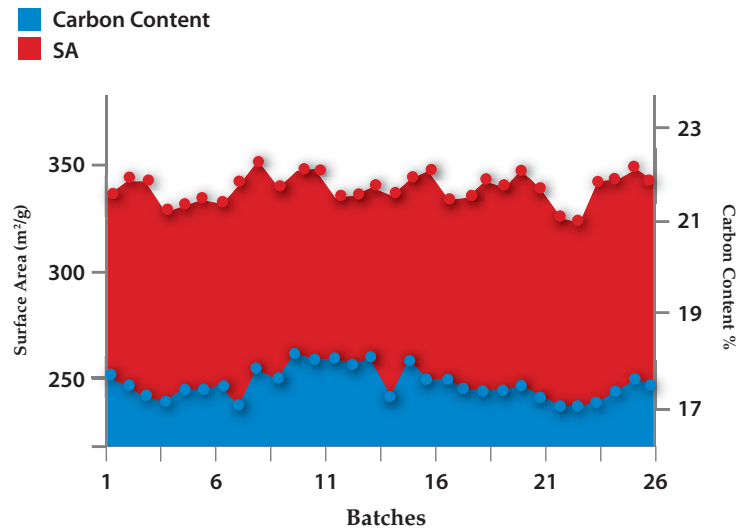
Highest loading and recovery of high purity products

- Perfectly spherical particle improves column packing and chromatography
- Narrow particle size and pore size distribution provides increased plate counts and loading
- High surface area and carbon content increases loading
- Freedom from fines reduces back pressure and frit blockage
- Highest purity silica (>99.99%) decreases tailing of basic compounds
- Strong resistance to both acid and alkaline conditions permits wide pH range operation and clean-in-place protocols
- High level lot-to-lot and batch-to-batch reproducibility allows for large scale cGMP LC processes
- Improved process economics and superior loadability provide increased yields and reduced purified product cost

TECHNIPUR™

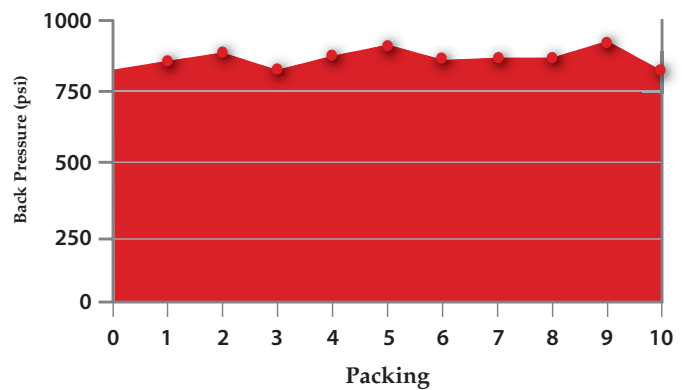
Batch-to-Batch Reproducibility

- Batch-to-batch reproducibility enables seamless scale up and consistent process performance



Mechanical Stability

- Minimum change of back pressure after repeated packing is an indication of excellent mechanical stability

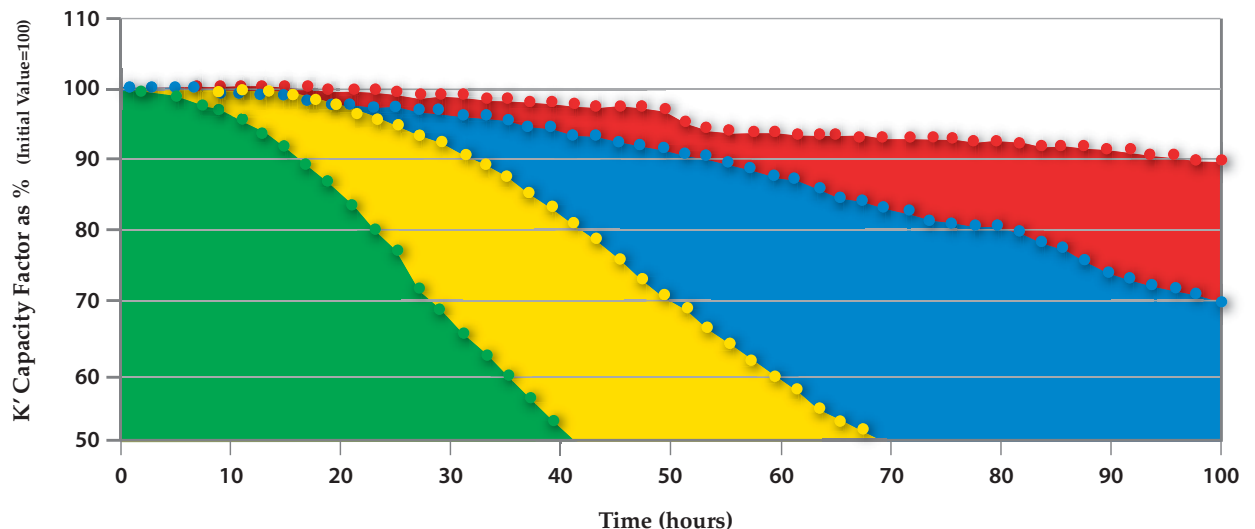


High pH Stability

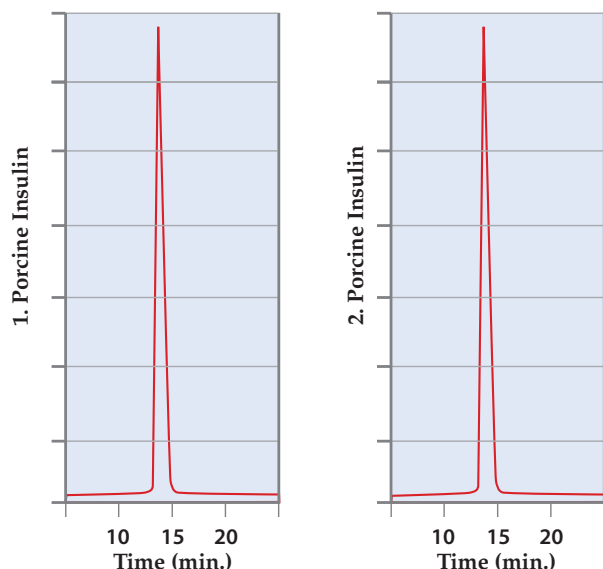
- The alkaline stability of TechniPur™ surpasses all competitors

Condition: 4mM Na₂B₄O₇ (pH=10, NaOH)/Methanol=90/10 (v/v), 50° C

Legend: Silica A (C8, 120A) (Green), Silica B (C8, 120A) (Yellow), TechniPur™ (C8, 120A) (Red), Silica C (C8, 120A) (Blue)



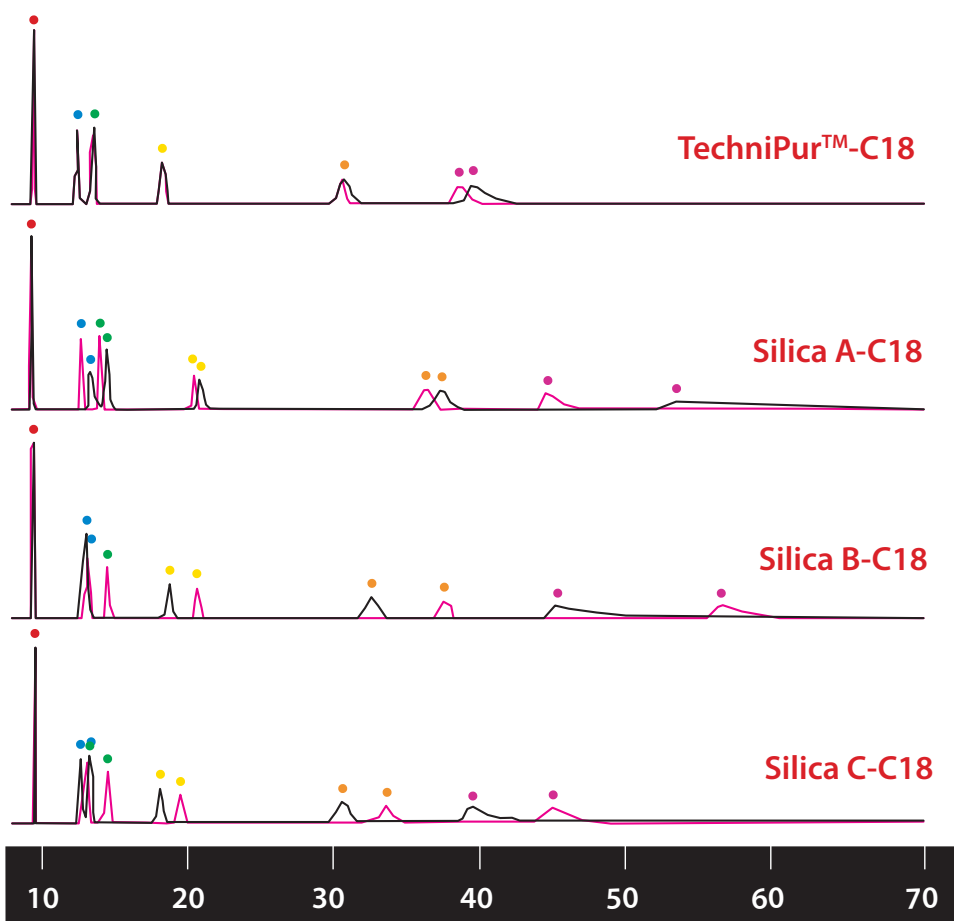
World Class LC Media for Critical cGMP Purifications



Caustic Cleaning Stability

- TechniPur™ permits clean-in-place CIP protocol

1. First injection of porcine insulin in virgin column
2. After 10 CIP cycles, condition: 0.1M NaOH:EtOH 40/60 (v/v) pH=13, 5 column volumes, per cip step, repeated 10 times



Low pH Stability

- Excellent stability in acid indicates high purity silica
- TechniPur™ permits clean-in-place CIP protocol

After 3300 column volumes of 0.1% TFA at 70°C, the performance of TechniPur™ was almost unchanged. However other packings were markedly changed. This result shows that TechniPur™ can be used for longer periods than other packings under acidic conditions.

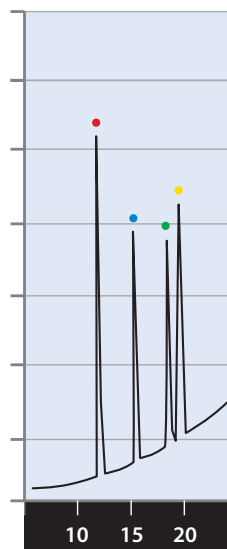
ASSAY: Eluent: 65:35 methanol/20mM KH₂PO₄/K₂HPO₄ (pH 7.0) Flow Rate: 1.7 mL/min Detection: UV254nm



Process Scale LC Applications

Peptide Purification

- TechniPur™ C18 provides higher loading and improved resolution for peptide purification



■ Bradykinin
■ Met-Enkephalin
■ Angiotensin
■ Leu-Enkephalin

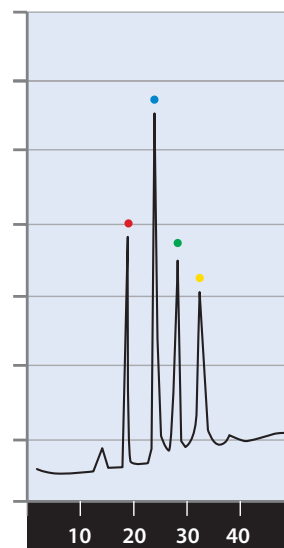
Column: 6.0mm I.D. x 250mm
Eluent: A) 0.01N HCl
 B) ethanol, 15-40%
Flow Rate: 1.7 mL/min
Temperature: ambient
Detection: UV220nm, 0.32AUFS
Injection: 30µL(0.08-0.15mg/mL)

Time (min.)



Protein Purification

- TechniPur™ 300Å C4 enables large scale reversed-phase protein purification



■ Insulin
■ BSA
■ β-Lactoglobulin
■ Ovalbumin

Column: 6.0mm I.D. x 250mm
Eluent: A) 0.01N HCl
 B) ethanol, 15-40%
Flow Rate: 1.7 mL/min
Temperature: ambient
Detection: UV220nm, 0.32AUFS
Injection: 30µL(0.08-0.15mg/mL)

Time (min.)

Purification Media for MPLC, HPLC, SFC and SMB Applications

Catalog No.	µ	Å	Description	Application
TPR-10-60	10	60	normal phase	small molecules
TPR-15-60	15	60	normal phase	small molecules
TPR-10-100	10	100	normal phase	small molecules
TPR-15-100	15	100	normal phase	small molecules
TPR-10-100-C18	10	100	reversed-phase	small molecules, peptides & oligos
TPR-15-100-C18	15	100	reversed-phase	small molecules, peptides & oligos
TPR-10-300-C4	10	300	reversed-phase	polypeptides, proteins & oligos
TPR-15-300-C4	15	300	reversed-phase	polypeptides, proteins & oligos

For large particles, different pore size, or different bonded-phases, please call the TechniKrom Technical Support Center at 800-865-4100.