

Kromasil 100 Å

SIL, C4, C8, C18, NH2 and Phenyl

High performance spherical silica for analytical to process scale liquid chromatography. Functionalized Kromasil 100 Å is manufactured using monofunctional silanes, and is fully end-capped¹. This gives high reproducibility and chemical stability.

Product characteristics

Particle sizes

Phase	Particle size [µm]							
	1.8	2.5	3.5	5	7	10	13	16
SIL	•	•	•	•	•	•	•	•
C4	•	•	•	•	•	•	•	•
C8	•	•	•	•	•	•	•	•
C18	•	•	•	•	•	•	•	•
NH2				•	•	•	•	•
Phenyl				•		•		•

Particle size distribution

(Coulter Multisizer)

dp [µm]	dv ₉₀ /dv ₁₀
10,13,16	≤ 1.70
7	≤ 1.60
5	≤ 1.50
3.5	≤ 1.45
2.5	≤ 1.40
1.8	≤ 1.50

Spec surface area

320 m²/g (multi-point BET)

Pore volume

0.9 ml/g (N₂-adsorption)

Pore size

110 Å (N₂-adsorption)

Pore size distribution

80% ± 25 Å (N₂-adsorption)

97% of the BET-surface is accessible for toluene

Coverage

(elemental analysis)

C4	8% C	3.8 µmol/m ²
C8	12% C	3.7 µmol/m ²
C18	20% C	3.5 µmol/m ²
NH2	1.7% N	4.5 µmol/m ²
Phenyl	14% C	3.7 µmol/m ²

Chemical purity

Typical figures (AAS or ICP):

Na: < 10 ppm

Al: < 5 ppm

Fe: < 5 ppm

Chemical stability²

Kromasil derivatized phases are stable between pH 1.5 and 10 and as high as 12 under certain conditions.

Mechanical stability

Allows repeated packing at up to 700 bar (10 000 psi).

Packed density

SIL:	0.50 g/ml
C4:	0.57 g/ml
C8:	0.60 g/ml
C18:	0.66 g/ml
NH2:	0.53 g/ml
Phenyl:	0.59 g/ml

Delivery

Kromasil bulk is delivered in polyethylene bottles or in polyethylene bags packed in plastic drums.

Kromasil, patented by Nouryon, is manufactured in multi-kilogram batches with high reproducibility.

The Kromasil production is ISO 9001 and ISO 14 001 certified.

Footnotes

1) Kromasil NH2 is derivatized using a trifunctional silane, and is not end-capped.

2) Applies to derivatized phases except NH2.