



## Nano-SIL C18 <sup>G</sup> octadecyl-modified HPTLC silica layers

### Technical characteristics

- Nano silica 60, mean pore size 60 Å, specific surface (BET) ~ 500 m<sup>2</sup>/g, specific pore volume 0.75 mL/g, pH stability 2–10, particle size 2–10 µm
- Indicator: acid-resistant product with a pale blue fluorescence for short-wave UV (254 nm), UV-absorbing substances appear as dark-blue to black spots on a light-blue background

### Modification

- Partial (50 %) or complete (100 %) octadecyl modification, carbon content 7.5 and 14 %, respectively
- Order of polarity: silica > DIOL > NH<sub>2</sub> > CN > RP-2 > C18-50 > RP-18 W > C18-100

### Recommended application

- Reversed phase separation mode with eluents from anhydrous solvents to mixtures with high concentrations of water (see table and figure below)
- Alkaloids, amino acids, preservatives, optical brighteners, barbiturates, polycyclic aromatic hydrocarbons (PAH), drugs, peptides, flavonoids, phenols, indole derivatives, steroids

### Ordering information

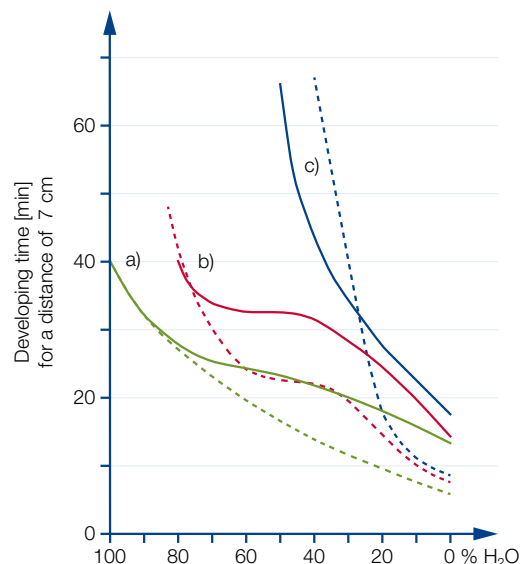
Plate size [cm]	10 x 10	Thickness of layer	Fluorescent indicator
Pack of [plates]	25		

### Glass plates

Nano-SIL C18-50	50 % silanized	81 1054	0.20 mm	–
Nano-SIL C18-50 UV <sub>254</sub>	50 % silanized	81 1064	0.20 mm	UV <sub>254</sub>
Nano-SIL C18-100	100 % silanized	81 1052	0.20 mm	–
Nano-SIL C18-100 UV <sub>254</sub>	100 % silanized	81 1062	0.20 mm	UV <sub>254</sub>

Eluent	v/v	Migration distances [mm/15 min]		
		C18-50	C18-100	RP-18 W
Methanol – H <sub>2</sub> O	2:1	57	45	44
	1:1	52	21	40
	1:2	50	0	43
	1:3	40	0	45
	1:4	30	0	46
Acetonitrile – H <sub>2</sub> O	0:1	0	0	54
	2:1	62	46	66
	1:1	52	30	54
	1:2	51	27	46
	1:3	48	15	44
Trichloromethane	1:9	20	0	42
		68	64	71

Migration of C18-50 and C18-100 silica layers as compared to RP-18 W plates



a) RP-18 W, b) Nano-SIL C18-50, c) Nano-SIL C18-100 all plates with UV indicator

— methanol – water; - - - acetonitrile – water

Elution properties of MN RP plates in mixtures of methanol – water and acetonitrile – water

Further application examples can be found online in our application database at [www.mn-net.com/apps](http://www.mn-net.com/apps)

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