

# MANAGEMENT SYSTEM CERTIFICATE

Número de certificado:/Certificate No.: 254088-2018-AQ-IBE-ENAC  
 Fecha Inicial de Certificación:/Initial date: 01 febrero 2010  
 Fecha de caducidad del último ciclo de certificación/ Expiry date of last certification cycle: 14 septiembre 2018  
 Fecha de la última recertificación/ Date of last recertification: 15 octubre 2018  
 Validez:/Valid: 17 diciembre 2018 - 17 diciembre 2021

Se certifica que el sistema de gestión de/This is to certify that the management system of

## TEKNOKROMA ANALÍTICA, S.A.

Camí de Can Calders, 14, 08173, Sant Cugat del Vallés, Barcelona, Spain

es conforme a la Norma del Sistema de Gestión de Calidad/  
 has been found to conform to the Quality Management System standard:

**ISO 9001:2015**

Este certificado es válido  
 para el siguiente campo de aplicación:

**Fabricación de columnas y consumibles  
 para cromatografía, venta y asistencia  
 técnica de productos, instrumentos y  
 reactivos para laboratorios de diagnóstico,  
 clínicos, industriales y de investigación.**

This certificate is valid  
 for the following scope:

**Manufacturing of columns and consumables  
 for chromatography, sales and technical  
 assistance of products, instruments and  
 reagents for diagnostic, clinical, industrial  
 and research laboratories.**

Lugar y fecha/Place and date:  
**Barcelona, 19 noviembre 2018**



Oficina de emisión/  
 For the Certification Body  
**DNV GL – Business Assurance**  
**Edificio Inbisa Mas Blau, C/ Garrotxa**  
**6-8, 3º 1ª, El Prat de Llobregat,**  
**08820, Barcelona, Spain**

  
**Ana del Rio Salgado**  
 Representante de la dirección/  
 Management Representative

# Hyperpack Basic Tk



It reproduces with total fidelity the chromatographic behavior of the columns Hypersil BDS C18. Available in 3 and 5µm and in all length and diameter configurations.

## 5 Microns Packing

### Analytical columns 4.6 mm i.d. HYPERPACK BASIC

Packing	Funct.	Length Diameter			Cat.Nbr.
		µm	cm	cm	
Hyperpack BASIC	ODS	5	3	0.46	TR-011007
Hyperpack BASIC	ODS	5	4	0.46	TR-011008
Hyperpack BASIC	ODS	5	5	0.46	TR-011009
Hyperpack BASIC	ODS	5	10	0.46	TR-011010
Hyperpack BASIC	ODS	5	15	0.46	TR-011011
Hyperpack BASIC	ODS	5	20	0.46	TR-011012
Hyperpack BASIC	ODS	5	25	0.46	TR-011013
Hyperpack BASIC	C8	5	3	0.46	TR-011108
Hyperpack BASIC	C8	5	4	0.46	TR-011109
Hyperpack BASIC	C8	5	5	0.46	TR-011110
Hyperpack BASIC	C8	5	10	0.46	TR-011111
Hyperpack BASIC	C8	5	15	0.46	TR-011112
Hyperpack BASIC	C8	5	20	0.46	TR-011113
Hyperpack BASIC	C8	5	25	0.46	TR-011114

## 5 Microns Packing

### Analytical columns 4.0 mm i.d. HYPERPACK BASIC

Packing	Funct.	Length Diameter			Cat.Nbr.
		µm	cm	cm	
Hyperpack BASIC	ODS	5	3	0.4	TR-411007
Hyperpack BASIC	ODS	5	4	0.4	TR-411008
Hyperpack BASIC	ODS	5	5	0.4	TR-411009
Hyperpack BASIC	ODS	5	10	0.4	TR-411010
Hyperpack BASIC	ODS	5	15	0.4	TR-411011
Hyperpack BASIC	ODS	5	20	0.4	TR-411012
Hyperpack BASIC	ODS	5	25	0.4	TR-411013

Packing	Funct.	Length Diameter			Cat.Nbr.
		µm	cm	cm	
Hyperpack BASIC	C8	5	3	0.4	TR-411108
Hyperpack BASIC	C8	5	4	0.4	TR-411109
Hyperpack BASIC	C8	5	5	0.4	TR-411110
Hyperpack BASIC	C8	5	10	0.4	TR-411111
Hyperpack BASIC	C8	5	15	0.4	TR-411112
Hyperpack BASIC	C8	5	20	0.4	TR-411113
Hyperpack BASIC	C8	5	25	0.4	TR-411114

## 5 Microns Packing

### Microbore columns 21 mm i.d. HYPERPACK BASIC

Packing	Funct.	Length Diameter			Cat.Nbr.
		µm	cm	cm	
Hyperpack BASIC	ODS	5	3	0.21	TR-010317
Hyperpack BASIC	ODS	5	5	0.21	TR-010318
Hyperpack BASIC	ODS	5	10	0.21	TR-010319
Hyperpack BASIC	ODS	5	15	0.21	TR-010320
Hyperpack BASIC	ODS	5	20	0.21	TR-010321
Hyperpack BASIC	ODS	5	25	0.21	TR-010322
Hyperpack BASIC	C8	5	3	0.21	TR-011115
Hyperpack BASIC	C8	5	5	0.21	TR-011116
Hyperpack BASIC	C8	5	10	0.21	TR-011117
Hyperpack BASIC	C8	5	15	0.21	TR-011118
Hyperpack BASIC	C8	5	20	0.21	TR-011119
Hyperpack BASIC	C8	5	25	0.21	TR-011120

## 5 Microns Packing

### Microbore columns 3.0 mm i.d. HYPERPACK BASIC

Packing	Funct.	Length Diameter			Cat.Nbr.
		µm	cm	cm	
Hyperpack BASIC	ODS	5	3	0.3	TR-010323
Hyperpack BASIC	ODS	5	5	0.3	TR-010324
Hyperpack BASIC	ODS	5	10	0.3	TR-010325
Hyperpack BASIC	ODS	5	15	0.3	TR-010326
Hyperpack BASIC	ODS	5	20	0.3	TR-010327
Hyperpack BASIC	ODS	5	25	0.3	TR-010328
Hyperpack BASIC	C8	5	3	0.3	TR-011121
Hyperpack BASIC	C8	5	5	0.3	TR-011122
Hyperpack BASIC	C8	5	10	0.3	TR-011123
Hyperpack BASIC	C8	5	15	0.3	TR-011124
Hyperpack BASIC	C8	5	20	0.3	TR-011125
Hyperpack BASIC	C8	5	25	0.3	TR-011126

## 5 Microns Packing

### Semi Preparative columns HYPERPACK BASIC

Packing	Funct.	Length Diameter			Cat.Nbr.
		µm	cm	cm	
Hyperpack BASIC	ODS	5	10	0.78	TR-010329
Hyperpack BASIC	ODS	5	15	0.78	TR-010330
Hyperpack BASIC	ODS	5	25	0.78	TR-010331
Hyperpack BASIC	ODS	5	10	1.00	TR-010332

# TK Hyperpack Basic

Packing	Funct.	Length Diameter			Cat.Nbr.
		µm	cm	cm	
Hyperpack BASIC	ODS	5	15	1.00	TR-010333
Hyperpack BASIC	ODS	5	25	1.00	TR-010334
Hyperpack BASIC	ODS	5	5	2.12	TR-010335
Hyperpack BASIC	ODS	5	10	2.12	TR-010336
Hyperpack BASIC	ODS	5	15	2.12	TR-010337
Hyperpack BASIC	ODS	5	25	2.12	TR-010338
Hyperpack BASIC	C8	5	10	0.78	TR-011127
Hyperpack BASIC	C8	5	15	0.78	TR-011128
Hyperpack BASIC	C8	5	25	0.78	TR-011129
Hyperpack BASIC	C8	5	10	1.00	TR-011130
Hyperpack BASIC	C8	5	15	1.00	TR-011131
Hyperpack BASIC	C8	5	25	1.00	TR-011132
Hyperpack BASIC	C8	5	5	2.12	TR-011133
Hyperpack BASIC	C8	5	10	2.12	TR-011134
Hyperpack BASIC	C8	5	15	2.12	TR-011135
Hyperpack BASIC	C8	5	25	2.12	TR-011136

## 5 Microns Packing Cartridge System 4 mm i.d. HYPERPACK BASIC

Packing	Funct.	Length Diameter			Cat.Nbr.
		µm	cm	cm	
Hyperpack BASIC	ODS	5	7,5	0.4	TR-010339
Hyperpack BASIC	ODS	5	10	0.4	TR-010340
Hyperpack BASIC	ODS	5	15	0.4	TR-010341
Hyperpack BASIC	ODS	5	25	0.4	TR-010342
Hyperpack BASIC	C8	5	7,5	0.4	TR-011137
Hyperpack BASIC	C8	5	10	0.4	TR-011138
Hyperpack BASIC	C8	5	15	0.4	TR-011139
Hyperpack BASIC	C8	5	25	0.4	TR-011140

## 3 Microns Packing Analytical Columns 4.6 mm i.d. HYPERPACK BASIC

Packing	Funct.	Length Diameter			Cat.Nbr.
		µm	cm	cm	
Hyperpack BASIC	ODS	3	3	0.46	TR-011014
Hyperpack BASIC	ODS	3	4	0.46	TR-011015
Hyperpack BASIC	ODS	3	5	0.46	TR-011016
Hyperpack BASIC	ODS	3	10	0.46	TR-011017
Hyperpack BASIC	ODS	3	15	0.46	TR-011018
Hyperpack BASIC	ODS	3	20	0.46	TR-011019
Hyperpack BASIC	ODS	3	25	0.46	TR-011020
Hyperpack BASIC	C8	3	3	0.46	TR-011141
Hyperpack BASIC	C8	3	4	0.46	TR-011142
Hyperpack BASIC	C8	3	5	0.46	TR-011143
Hyperpack BASIC	C8	3	10	0.46	TR-011144
Hyperpack BASIC	C8	3	15	0.46	TR-011145
Hyperpack BASIC	C8	3	20	0.46	TR-011146
Hyperpack BASIC	C8	3	25	0.46	TR-011147

## 3 Microns Packing Ultrarapid Columns 4.0 mm i.d. HYPERPACK BASIC

Packing	Funct.	Length Diameter			Cat.Nbr.
		µm	cm	cm	
Hyperpack BASIC	ODS	3	3	0.4	TR-411014
Hyperpack BASIC	ODS	3	4	0.4	TR-411015
Hyperpack BASIC	ODS	3	5	0.4	TR-411016
Hyperpack BASIC	ODS	3	10	0.4	TR-411017
Hyperpack BASIC	ODS	3	15	0.4	TR-411018
Hyperpack BASIC	ODS	3	20	0.4	TR-411019
Hyperpack BASIC	ODS	3	25	0.4	TR-411020
Hyperpack BASIC	C8	3	3	0.4	TR-411141
Hyperpack BASIC	C8	3	4	0.4	TR-411142
Hyperpack BASIC	C8	3	5	0.4	TR-411143
Hyperpack BASIC	C8	3	10	0.4	TR-411144
Hyperpack BASIC	C8	3	15	0.4	TR-411145
Hyperpack BASIC	C8	3	20	0.4	TR-411146
Hyperpack BASIC	C8	3	25	0.4	TR-411147

## 3 Microns Packing Microbore Columns 2.1 mm i.d. HYPERPACK BASIC

Packing	Funct.	Length Diameter			Cat.Nbr.
		µm	cm	cm	
Hyperpack BASIC	ODS	3	3	0.21	TR-010343
Hyperpack BASIC	ODS	3	5	0.21	TR-010344
Hyperpack BASIC	ODS	3	10	0.21	TR-010345
Hyperpack BASIC	ODS	3	15	0.21	TR-010346
Hyperpack BASIC	ODS	3	20	0.21	TR-010347
Hyperpack BASIC	ODS	3	25	0.21	TR-010348
Hyperpack BASIC	C8	3	3	0.21	TR-011148
Hyperpack BASIC	C8	3	5	0.21	TR-011149
Hyperpack BASIC	C8	3	10	0.21	TR-011150
Hyperpack BASIC	C8	3	15	0.21	TR-011151
Hyperpack BASIC	C8	3	20	0.21	TR-011152
Hyperpack BASIC	C8	3	25	0.21	TR-011153

## 3 Microns Packing Microbore Columns 3.0 mm i.d. HYPERPACK BASIC

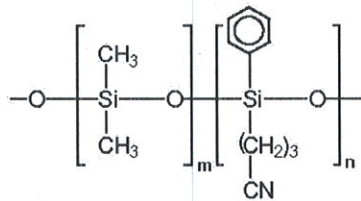
Packing	Funct.	Length Diameter			Cat.Nbr.
		µm	cm	cm	
Hyperpack BASIC	ODS	3	3	0.3	TR-010349
Hyperpack BASIC	ODS	3	5	0.3	TR-010350
Hyperpack BASIC	ODS	3	10	0.3	TR-010351
Hyperpack BASIC	ODS	3	15	0.3	TR-010352
Hyperpack BASIC	ODS	3	20	0.3	TR-010353
Hyperpack BASIC	ODS	3	25	0.3	TR-010354
Hyperpack BASIC	C8	3	3	0.3	TR-011154
Hyperpack BASIC	C8	3	5	0.3	TR-011155
Hyperpack BASIC	C8	3	10	0.3	TR-011156
Hyperpack BASIC	C8	3	15	0.3	TR-011157
Hyperpack BASIC	C8	3	20	0.3	TR-011158
Hyperpack BASIC	C8	3	25	0.3	TR-011159

# TK Teknokroma Capillary Columns

## TRB-624

94% Dimethyl-(6%) cyanopropylphenyl polysiloxane, bonded and crosslinked phase.

- (6%) Cyanopropyl-phenyl - (94%) dimethylpolysiloxane
- Column developed specially for environmental analysis of volatile compounds ("Volatile Priority Pollutants")
- Column perfectly compatible with EPA methods 501.3, 502.2, 524.2, 601, 602, 8010, 8015, 8020, 8221, 8240 and 8260.
- Excellent inertness against active compounds



Structure of Poly(dimethylcyanopropylphenyl)siloxane

### TRB-624 Equivalent Phase

Agilent: HP-1301, HP-624, DB-1301, DB-624

Supelco: SPB-1301, OVI-G43

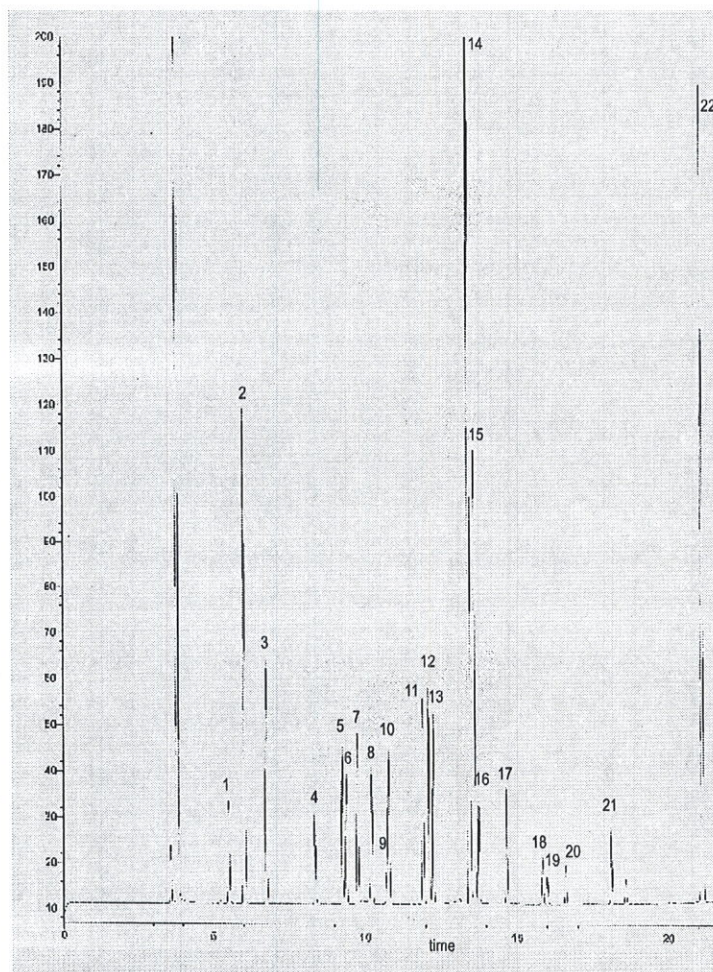
Restek: Rtx-1301, Rtx-624

SGE: BPX-624

Alltech: AT-624

### TRB-624

Internal Diam.(mm)	Length (m)	Film Thickness (µm)	Temp limits (°C)	Part. N°. (P/N)
0,18	20	1,00	-20 to 240/260	TR-601084
0,20	25	1,12	-20 to 240/260	TR-601129
0,25	30	1,40	-20 to 240/260	TR-601432
	60	1,40	-20 to 240/260	TR-601462
0,32	30	1,80	-20 to 240/260	TR-601833
	60	1,80	-20 to 240/260	TR-601863
0,53	30	3,00	-20 to 240/260	TR-603035
	60	3,00	-20 to 240/260	TR-603065
	75	3,00	-20 to 240/260	TR-603075
	105	3,00	-20 to 240/260	TR-6030K5



### TRB-624

Column: TRB-624, P/N TR-601462

Dimensions: 60m x 0.25mm x 1.4 µm

Injection: 1 µL solvents mixture, split 1:100 (20-600 ng/comp.), 260°C

Carrier gas: H<sub>2</sub>, constant pressure 25 psi (172.3 KPa).

Oven temperature: 50°C(5min) @ 6°C/min to 220°C

Detector: FID, 280°C

#### Peak Name

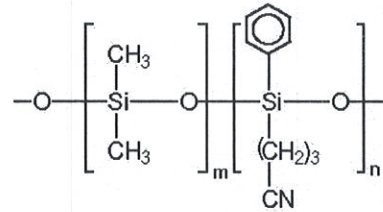
- 1 Diethylether
- 2 Acetone
- 3 Methyl acetate
- 4 Vinyl acetate
- 5 MEK
- 6 Ethyl acetate
- 7 Tetrahydrofuran
- 8 Cyclohexane
- 9 Benzene
- 10 Isopropyl acetate
- 11 2-Pentanone
- 12 3-Pentanone
- 13 Propyl acetate
- 14 Pyridine
- 15 Toluene
- 16 Isobutyl acetate
- 17 Butyl acetate
- 18 Ethyl benzene
- 19 m-Xylene/p-Xylene
- 20 o-Xylene
- 21 Diisobutylketone
- 22 Nitrobenzene

TKG 1119

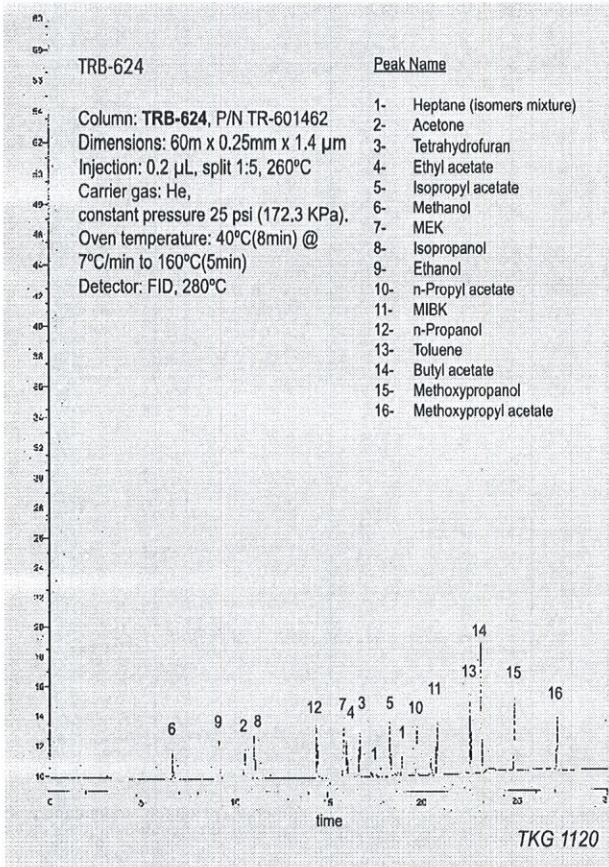
## TRB-G43

**94% Dimethyl-(6%) cyanopropylphenyl polysiloxane, bonded and crosslinked phase.**

- (6%) Cyanopropyl-phenyl - (94%) dimethylpolysiloxane (USP G43)
- Fulfills the specifications of the American (USP) and European (EP) pharmacopoeia for the analysis of residual solvents (OVI) in pharmaceutical products, USP method <467> and EP method 2.4.24
- Column with chemical inertness and low bleed guaranteed
- Specially tested for complete separation of the five solvents regulated by USP Method 467
- For this analysis, pharmacopoeia recommends the use of a guard column of 5m (P/N TR-200055) to trap the non-volatile impurities in the sample

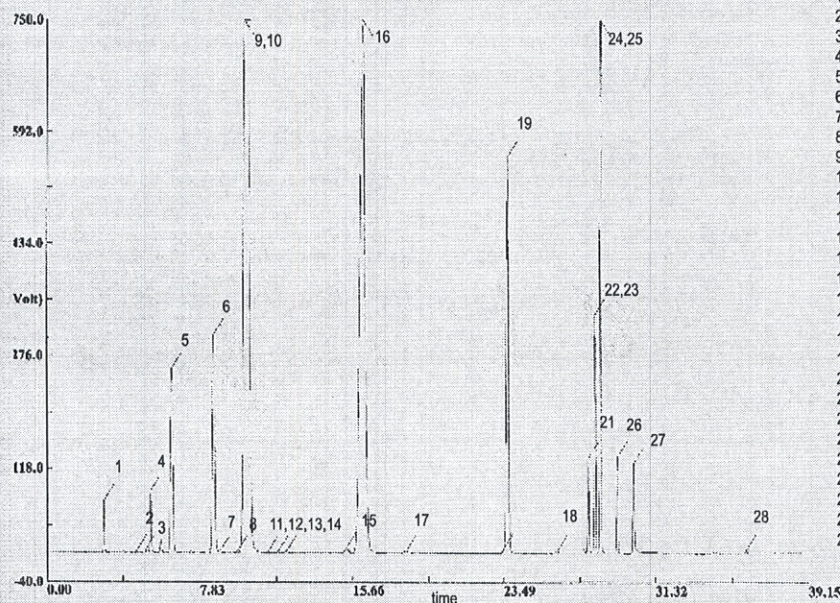


Structure of Poly(dimethylcyanopropylphenyl)siloxane



## TRB-G43

Column: **TRB-G43**, P/N TR-163035  
 Dimensions: 30m x 0.53mm x 3.0  $\mu$ m  
 Injection: split 1:2, 250°C, 5m x 0.53mm intermediate polarity column (TR-200055)  
 Sample: 0.5 mL headspace 80°C (2t static head space sampler) 28 Class 1 Mix and Class 2 Mix A, Mix B residual solvents at the regulatory limit concentration.  
 Carrier gas: He, constant pressure 4.8 psi (33.1 KPa), 35 cm/s (40°C)  
 Oven temperature: 40°C(20min) @ 10°C/min to 240°C(10min)  
 Detector: FID, 250°C



### Peak Name

- Methanol
- 1,2-Dichloroethene
- Acetonitrile
- Methylene chloride
- n-Hexane
- Cis-1,2-dichloroethene
- Nitromethane
- Chloroform
- Cyclohexane
- 1,1,1-Trichloroethane
- Carbon tetrachloride
- Benzene
- 1,2-Dimethoxyethane
- 1,2-Dichloroethane
- Trichloroethylene
- Methylcyclohexane
- 1,4-Dioxane
- Pyridine
- Toluene
- 2-Hexanone
- Chlorobenzene
- Dimethylformamide
- Ethylbenzene
- m-Xylene
- p-Xylene
- o-Xylene
- N,N-dimethylacetamide
- 1,2,3,4-Tetrahydronaphthalene

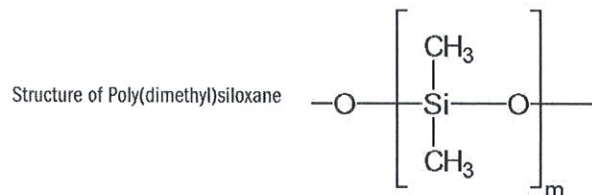
TKG 1121

# TK Teknokroma Capillary Columns

## TRB-1

### 100% Dimethyl polysiloxane, bonded and crosslinked phase

- 100% Dimethylpolysiloxane
- Non-polar phase
- Column for general use
- High thermal stability
- Ideal column for the analysis of petrochemical products and industrial solvents



### TRB-1 Equivalent Phase

Agilent: HP-1, HP101, ULTRA-1, DB-1

Supelco: SPB-1, EQUITY-1

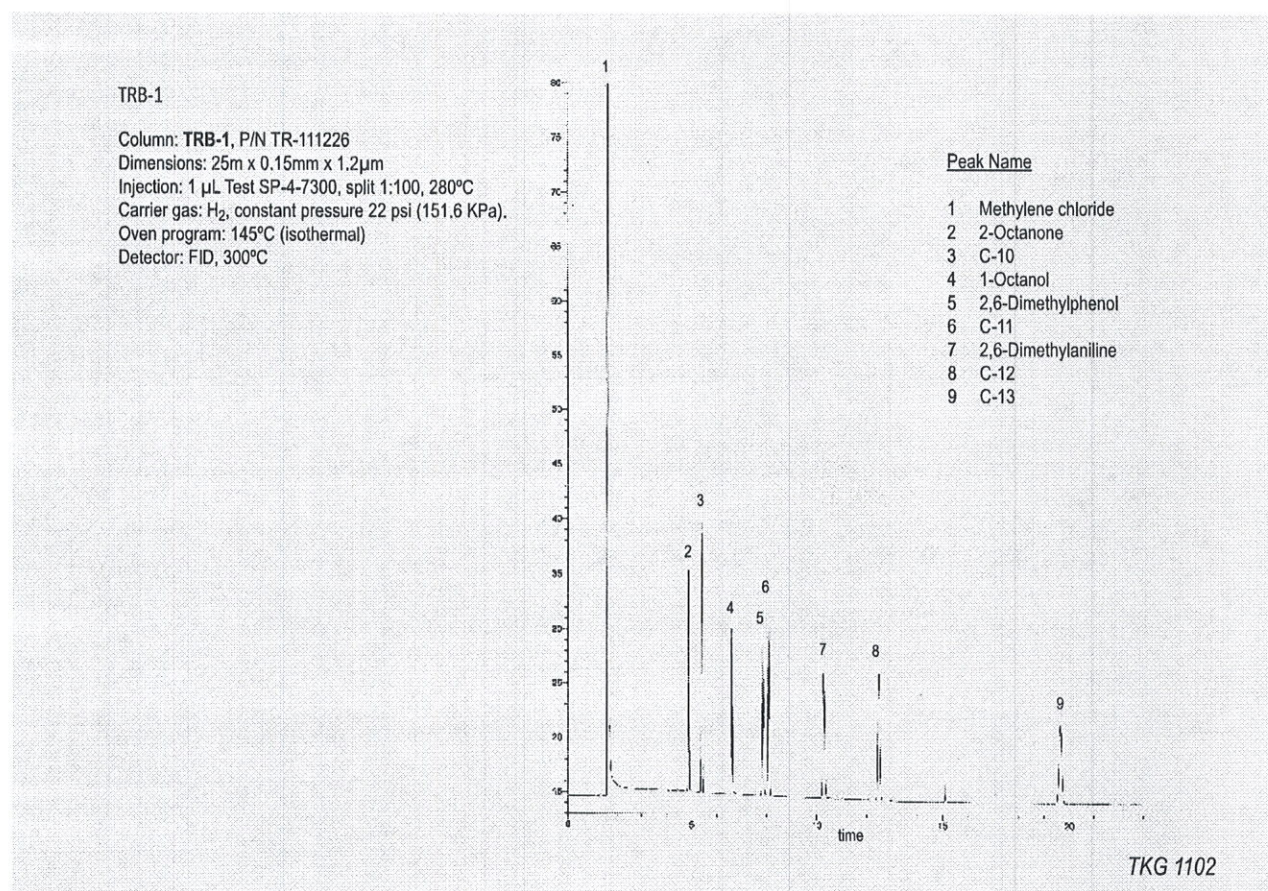
Restek: Rtx-1, Rtx-2887

Varian: CP-SIL 5 CB

SGE: BP-1.

Alltech: AT-1

Macherey-Nagel: OPTIMA-1



## TRB-1

Internal Diam. (mm)	Length (m)	Film Thickness (µm)	Temp limits (°C)	Part. N°. (P/N)
0,10	5	0,12	-60 to 325/350	TR-1107A1
	10	0,10	-60 to 325/350	TR-110141
	10	0,40	-60 to 320/340	TR-110441
	20	0,10	-60 to 325/350	TR-110181
	20	0,40	-60 to 320/340	TR-110481
	40	0,20	-60 to 325/350	TR-1121C1
	40	0,40	-60 to 320/340	TR-1104C1

Internal Diam. (mm)	Length (m)	Film Thickness (µm)	Temp limits (°C)	Part. N°. (P/N)
0,18	10	0,18	-60 to 325/350	TR-110944
	10	0,20	-60 to 325/350	TR-112144
	10	0,40	-60 to 325/350	TR-110444
	20	0,18	-60 to 325/350	TR-110984
	20	0,40	-60 to 325/350	TR-110484
	40	0,40	-60 to 325/350	TR-1104C4
0,20	12	0,33	-60 to 325/350	TR-1133B9

# Teknokroma Capillary Columns **Tk**

Internal Length		Film	Temp	Part.
Diam.(mm)	(m)	Thickness (µm)	limits (°C)	N°. (P/N)
	15	0,15	-60 to 325/350	TR-111319
	15	0,35	-60 to 325/350	TR-110319
	15	0,50	-60 to 325/350	TR-110519
	25	0,15	-60 to 325/350	TR-111329
	25	0,33	-60 to 325/350	TR-113329
	25	0,35	-60 to 325/350	TR-110329
	25	0,50	-60 to 325/350	TR-110529
	30	0,15	-60 to 325/350	TR-111339
	30	0,35	-60 to 325/350	TR-110339
	30	0,50	-60 to 325/350	TR-110539
	50	0,15	-60 to 325/350	TR-111359
	50	0,33	-60 to 325/350	TR-113359
	50	0,35	-60 to 325/350	TR-110359
	60	0,15	-60 to 325/350	TR-111369
	60	0,50	-60 to 325/350	TR-110569
<b>0,25</b>	15	0,10	-60 to 325/350	TR-110112
	15	0,25	-60 to 325/350	TR-110212
	15	0,50	-60 to 325/350	TR-110512
	15	1,00	-60 to 325/340	TR-111012
	25	0,10	-60 to 325/350	TR-110122
	25	0,25	-60 to 325/350	TR-110222
	25	0,50	-60 to 325/350	TR-110522
	25	1,00	-60 to 320/340	TR-111022
	30	0,10	-60 to 325/350	TR-110132
	30	0,25	-60 to 325/350	TR-110232
	30	0,50	-60 to 325/350	TR-110532
	30	1,00	-60 to 320/340	TR-111032
	50	0,10	-60 to 325/350	TR-110152
	50	0,25	-60 to 325/350	TR-110252
	50	0,50	-60 to 325/350	TR-110552
	50	1,00	-60 to 320/340	TR-111052
	60	0,10	-60 to 325/350	TR-110162
	60	0,25	-60 to 325/350	TR-110262
	60	0,50	-60 to 325/350	TR-110562
	60	1,00	-60 to 325/350	TR-111062
	100	1,00	-60 to 325/350	TR-111092
	105	1,00	-60 to 325/350	TR-1110K2
<b>0,32</b>	15	0,10	-60 to 325/350	TR-110113
	15	0,25	-60 to 325/350	TR-110213
	15	0,50	-60 to 325/350	TR-110513
	15	1,00	-60 to 325/350	TR-111013
	15	3,00	-60 to 280/300	TR-113013
	25	0,10	-60 to 325/350	TR-110123
	25	0,25	-60 to 325/350	TR-110223
	25	0,50	-60 to 325/350	TR-110523
	25	1,00	-60 to 325/350	TR-111023
	25	3,00	-60 to 280/300	TR-113023
	30	0,10	-60 to 325/350	TR-110133
	30	0,25	-60 to 325/350	TR-110233

Internal Length		Film	Temp	Part.
Diam.(mm)	(m)	Thickness (µm)	limits (°C)	N°. (P/N)
	30	0,50	-60 to 325/350	TR-110533
	30	1,00	-60 to 325/350	TR-111033
	30	3,00	-60 to 280/300	TR-113033
	50	0,10	-60 to 325/350	TR-110153
	50	0,25	-60 to 325/350	TR-110253
	50	0,50	-60 to 325/350	TR-110553
	50	1,00	-60 to 325/350	TR-111053
	50	3,00	-60 to 280/300	TR-113053
<b>0,32</b>	60	0,10	-60 to 325/350	TR-110163
	60	0,25	-60 to 325/350	TR-110263
	60	0,50	-60 to 325/350	TR-110563
	60	1,00	-60 to 325/350	TR-111063
	60	3,00	-60 to 280/300	TR-113063
	60	5,00	-60 to 260/280	TR-115063
<b>0,53</b>	10	2,65	-60 to 300/310	TR-112645
	15	0,10	-60 to 320/340	TR-110115
	15	0,50	-60 to 320/340	TR-110515
	15	1,50	-60 to 310/330	TR-111515
	15	3,00	-60 to 270/290	TR-113015
	15	5,00	-60 to 270/290	TR-115015
	15	7,00	-60 to 260/280	TR-117015
	25	0,10	-60 to 320/340	TR-110125
	25	0,50	-60 to 320/340	TR-110525
	25	1,50	-60 to 310/330	TR-111525
	25	3,00	-60 to 270/290	TR-113025
	25	5,00	-60 to 270/290	TR-115025
	30	0,10	-60 to 320/340	TR-110135
	30	0,50	-60 to 320/340	TR-110535
	30	0,88	-60 to 310/330	TR-110835
	30	1,50	-60 to 310/330	TR-111535
	30	2,65	-60 to 270/290	TR-112635
	30	3,00	-60 to 270/290	TR-113035
	30	5,00	-60 to 270/290	TR-115035
	30	7,00	-60 to 260/280	TR-117035
	50	0,10	-60 to 320/340	TR-110155
	50	0,50	-60 to 320/340	TR-110555
	50	1,50	-60 to 310/330	TR-111555
	50	3,00	-60 to 270/290	TR-113055
	50	5,00	-60 to 270/290	TR-115055
	60	0,10	-60 to 320/340	TR-110165
	60	0,50	-60 to 320/340	TR-110565
	60	1,50	-60 to 310/330	TR-111565
	60	3,00	-60 to 270/290	TR-113065
	60	5,00	-60 to 270/290	TR-115065
	60	7,00	-60 to 240/260	TR-117065
	100	3,00	-60 to 270/290	TR-113095
	105	3,00	-60 to 270/290	TR-1130K5

Lichrospher's spherical packing of 5 and 10 µm particle size, giving all the advantages that are common to all the spherical packings: high permeability, high efficiency and excellent column stability.

## Analytical columns LICHROSPHER

Function	Dimensions										
	Particle size (µm)	10 x 0.46 cm	10 x 0.4 cm	12.5 x 0.46 cm	12.5 x 0.4 cm	15 x 0.46 cm	15 x 0.4 cm	20 x 0.46 cm	20 x 0.4 cm	25 x 0.46 cm	25 x 0.4 cm
Si 100	5	TR-011541	TR-411541	TTR-011543	TR-411543	TR-011545	TR-411545	TR-011547	TR-411547	TR-011549	TR-411549
100 RP-18	5	TR-011551	TR-411551	TR-011553	TR-411553	TR-011555	TR-411555	TR-011557	TR-411557	TR-011559	TR-411559
100 RP-18 ec	5	TR-011561	TR-411561	TR-011563	TR-411563	TR-011565	TR-411565	TR-011567	TR-411567	TR-011569	TR-411569
100 RP-8	5	TR-011571	TR-411571	TR-011573	TR-411573	TR-011575	TR-411575	TR-011577	TR-411577	TR-011579	TR-411579
100 RP-8 ec	5	TR-011581	TR-411581	TR-011583	TR-411583	TR-011585	TR-411585	TR-011587	TR-411587	TR-011589	TR-411589
100 NH2	5	TR-011591	TR-411591	TR-011593	TR-411593	TR-011595	TR-411595	TR-011597	TR-411597	TR-011599	TR-411599
100 CN	5	TR-011601	TR-411601	TR-011603	TR-411603	TR-011605	TR-411605	TR-011607	TR-411607	TR-011609	TR-411609
100 Diol	5	TR-011611	TR-411611	TR-011613	TR-411613	TR-011615	TR-411615	TR-011617	TR-411617	TR-011619	TR-411619
60 RP-Select B	5	TR-016813	TR-416813	TR-016814	TR-416814	TR-016815	TR-416815	TR-016816	TR-416816	TR-016817	TR-416817
Si 100	10	TR-011621	TR-411621	TR-011623	TR-411623	TR-011625	TR-411625	TR-011627	TR-411627	TR-011629	TR-411629
100 RP-18	10	TR-011631	TR-411631	TR-011633	TR-411633	TR-011635	TR-411635	TR-011637	TR-411637	TR-011639	TR-411639
100 RP-18 ec	10	TR-011641	TR-411641	TR-011643	TR-411643	TR-011645	TR-411645	TR-011647	TR-411647	TR-011649	TR-411649
100 RP-8	10	TR-011651	TR-411651	TR-011653	TR-411653	TR-011655	TR-411655	TR-011657	TR-411657	TR-011659	TR-411659
100 RP-8 ec	10	TR-011661	TR-411661	TR-011663	TR-411663	TR-011665	TR-411665	TR-011667	TR-411667	TR-011669	TR-411669
100 CN	10	TR-011681	TR-411681	TR-011683	TR-411683	TR-011685	TR-411685	TR-011687	TR-411687	TR-011689	TR-411689
100 Diol	10	TR-011691	TR-411691	TR-011693	TR-411693	TR-011695	TR-411695	TR-011697	TR-411697	TR-011699	TR-411699
60 RP-Select B10		TR-016808	TR-416808	TR-016809	TR-416809	TR-016810	TR-416810	TR-016811	TR-416811	TR-016812	TR-416812

## Semi-preparative Tracer columns LICHROSPHER

Function	Dimensions				
	Particle size (µm)	15 x 0.7 cm	25 x 0.7 cm	15 x 1.0 cm	25 x 1.0 cm
RP-18	10	TR-014437	TR-014439	TR-014441	TR-014443
RP-18 EC	10	TR-014445	TR-014447	TR-014449	TR-014451

## Microbore Tracer columns LICHROSPHER

Function	Dimensions				
	Particle size (µm)	15 x 0.7 cm	25 x 0.7 cm	15 x 1.0 cm	25 x 1.0 cm
RP-18	5	TR-021069	TR-021071	TR-021293	TR-021294
RP-18 EC	5	TR-021073	TR-021075	TR-021295	TR-021296

## Novafix™ Cartridge LICHROSPHER

Function	Particle size (µm)	Dimensions		
		7.5 x 0.4 cm	15 x 0.4 cm	25 x 0.4 cm
Si 100	5	TR-015238	TR-015239	TR-015240
100 RP-18	5	TR-015241	TR-015242	TR-015243
100 RP-18 ec	5	TR-015244	TR-015245	TR-015246
100 RP-8	5	TR-015247	TR-015248	TR-015249
100 RP-8 ec	5	TR-015250	TR-015251	TR-015252
100 NH2	5	TR-015253	TR-015254	TR-015255
100 CN	5	TR-015256	TR-015257	TR-015258
100 Diol	5	TR-015259	TR-015260	TR-015261
60 RP-Select B	5	TR-015572	TR-015573	TR-015574
Si 100	10	TR-015214	TR-015215	TR-015216
100 RP-18	10	TR-015217	TR-015218	TR-015219
100 RP-18 ec	10	TR-015220	TR-015221	TR-015222
100 RP-8	10	TR-015223	TR-015224	TR-015225
100 RP-8 ec	10	TR-015226	TR-015227	TR-015228
100 NH2	10	TR-015229	TR-015230	TR-015231
100 CN	10	TR-015232	TR-015233	TR-015234
100 Diol	10	TR-015235	TR-015236	TR-015237
60 RP-Select B	10	TR-015569	TR-015570	TR-015571