

**TOSOH**

# EcoSEC Specification Sheet

## THE WORLD'S FIRST SEMI-MICRO GPC/SEC SYSTEM FOR HIGH THROUGHPUT POLYMER ANALYSIS

### Reliability

- 7<sup>th</sup> generation of Tosoh GPC system engineering
- TSKgel SuperMultiporeHZ columns with extended linear molecular weight ranges
- Precise results from one EcoSEC GPC system to another

### Baseline stability

- Dynamic flow through both the RI sample and reference cells

### Reproducibility

- Temperature controlled pumps

### Performance efficiency

- Improved resolution from utilizing the more efficient TSKgel SuperMultiporeHZ columns
- Minimal peak broadening outside of the column even for 4.6 mm ID columns
- Two-fold reduction in analysis time
- Lower solvent & disposal costs

### Easy Operation

- Dedicated software
- One touch warm-up & shut down
- Overlay individual runs
- Ready for analysis in 2 hours (THF)

### Global Standards

- UL 61010-1
- CE mark certification
- FDA 21 CFR part 11 support



### ► PUMP

Flow rate	10 to 2,000 $\mu\text{L}/\text{min}$ in 1 $\mu\text{L}/\text{min}$ steps
Accuracy	+/- 2%
Precision	+/- 0.2%
Max. pressure	25 MPa or 3,500 psi

### ► AUTO-INJECTOR

Injection volume	1 to 1,500 $\mu\text{L}$ in 1 $\mu\text{L}$ increments
Number of samples	100

### ► COLUMN OVEN

Temperature range	ambient plus 10°C to 60°C
Capacity	7.8 mm ID x 30 cm L x 8 columns
Accuracy	+/- 0.5°C
Precision	+/- 0.02°C

### ► RI DETECTOR

Type	Bryce or dual flow type. Tungsten light source (1.00 - 1.80 RI range)
Cell volume	2.5 $\mu\text{L}$
Noise	$2 \times 10^{-9}$ RI units (RIU)
Drift	$1 \times 10^{-7}$ RIU/h (THF, 1.0 mL/min)

### ► UV DETECTOR (OPTIONAL)

Wavelength	195 to 350 nm
Cell volume	2 $\mu\text{L}$
Time constant	0.5, 1.0 and 3.0 seconds
Noise	$2.5 \times 10^{-5}$ AU (254 nm)
Drift	$3 \times 10^{-4}$ AU/h (254 nm)

### ► DIMENSION

680 (W) x 500 (D) x 580 (H) mm

**For further details of choice and selection of the EcoSEC system,  
please visit our website [www.ecosec.eu](http://www.ecosec.eu)  
or contact one of our technical specialists  
at +49 (0)6155-70437-36**