PRODUCT DATASHEET

Time-Lag Gas Permeation Apparatus for CO_2 Membranes

Constant-volume permeation: CO_2 permeability, diffusivity and solubility of membrane films

Product page





Close-up: permeation oven, cell and gas manifold

OVERVIEW

The Tech Inc. Time-Lag Gas Permeation Apparatus for CO_2 Membranes measures how fast CO_2 and other gases pass through a new membrane film, and why.

TYPICAL DESIGN DATA

Test methods	Constant-volume, variable-pressure (time-lag) method; ASTM D1434 (manometric); ISO 15105-1 (differential-pressure method)
Results	Permeability (Barrer), time lag, diffusivity, solubility and ideal selectivity, with leak-rate check and report
Gases	CO_2, N_2, CH_4, H_2, O_2 and He as standard; others on request
Codes and standards	ASTM D1434; ISO 15105-1; CE marking
Temperature	Oven-controlled; range to order
Measurement	Capacitance gauge on the downstream volume; feed pressure transducer; volume calibrated at the factory
Control	Automatic evacuation, gas admission and logging; HMI with time-lag plot

MODELS AND CAPACITIES

- **TI-TLP-1** – single-cell apparatus
- **TI-TLP-2** – two-cell apparatus for parallel films
- **TI-TLP-HT** – high-temperature version for inorganic and carbon films

Apparatus are built to the film size, gases and temperature range you work with.

ORDERING CODE

Example **TI-TLP-2**: **2** number of cells: 1, 2 or HT for the high-temperature version.

SCOPE OF SUPPLY

Included: factory acceptance test with a written report; drawings for approval, material certificates and manual.
Options: second cell; high-temperature version; humidified feed option.

Designed and built by Tech Inc. · **Part of the Davey Group since 1990**
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How to cite: Time-Lag Gas Permeation Apparatus for CO_2 Membranes (Tech Inc., Vaughan, Ontario, Canada). www.techincresearch.com/products-page/co2-membrane-time-lag-permeation-apparatus

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