



SCS LABCOTER® 3

SCS LABCOTER® 3 (PDS 2010)

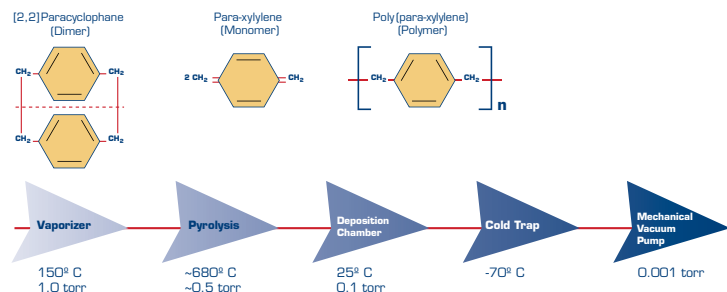
For Parylene laboratory research, applications development and testing, the SCS Labcoter® 3 Parylene deposition system (PDS 2010) performs reliable and repeatable application of SCS Parylene conformal coatings. Parylenes can be applied to components such as circuit boards, sensors, wafers, medical devices, MEMS and elastomeric components. SCS Labcoters are useful in research, development and repair environments.

The SCS Labcoter 3 features Windows®-based software with a touchscreen monitor. Built-in data logging and reporting allow deposition process parameters, including vaporizer temperatures and deposition chamber vacuum levels, to be easily exported.

PARYLENE DEPOSITION PROCESS

Ultra-thin Parylene coatings are inert and biocompatible and have excellent moisture, chemical and dielectric barrier properties. Parylene polymer coatings are applied via vapor deposition equipment, which allows for the precise control of coating rate and thickness. The deposition process begins as the powdered precursor (dimer) is vaporized under vacuum and heated to form a dimeric gas. The gas is then pyrolyzed to cleave the dimer into its monomeric form and finally is deposited as a transparent polymer film. The polymerization process occurs at ambient temperatures and does not involve solvents, catalysts or cure forces. Parylene coatings can be applied in thicknesses from several hundred angstroms to 75 microns.

PARYLENE DEPOSITION PROCESS (PARYLENE N)



LABCOTER 3 FEATURES

- Windows®-based software with touchscreen monitor
- Interchangeable chamber modules
- Choice of LN₂ or mechanical chiller
- Closed-loop monomer pressure control
- Continuous process monitoring
- Low-noise, direct drive vacuum pumps
- Fixture rotation
- Data logging and reporting
- Chiller temperature monitoring
- CE certified



OPTIONAL FEATURES

COLD TRAP OPTIONS

Choose one of the following for use with the Labcoter 3:

- Manual-fill LN₂ cold trap
- Automatic-fill LN₂ control
- Mechanical chiller

MECHANICAL CHILLER SPECIFICATIONS

Dimensions (W x D x H)	10 x 20 x 18.5 in / 25.4 x 50.8 x 47 cm
Power	110 VAC, 60 Hz, 1Ø, 7A or 220 VAC, 50 Hz, 1Ø, 5A

START-UP KIT

Everything you need to start Parylene coating with your Labcoter, including Parylene C or N dimer, tape, microsoap and brushes.

CHAMBER OPTIONS

- Removable lid chamber: 12 x 12 in / 30.5 x 30.5 cm, electropolished stainless steel chamber with Buna gasket and removable lid with handles (approximately 22 L capacity)
- Reduced capacity chamber: 12 x 3 in / 30.5 x 7.6 cm, electropolished stainless steel chamber with view port and Buna gasket (approximately 5.5 L capacity)
- Variable speed tumble coat chamber: 12 x 12 in / 30.5 x 30.5 cm, electropolished stainless steel chamber with removable plexiglass lid. Includes a variable speed rotation drive system (2 to 12 RPM), rotary coupling (used to rotate the parts basket) and stainless steel mesh cylindrical parts baskets.

PDS 2010 FIXTURE

Used to hold parts in place during the Parylene vacuum deposition process.

SCS Labcoter® 3
with optional
mechanical chiller



LABCOTER® 3 SPECIFICATIONS

Dimensions (W x D x H)	19.5 x 24.0 x 50.5 in / 49.5 x 61 x 128.3 cm
Weight	200 lb / 91 kg
Chamber size	12 x 12 in / 30.5 x 30.5 cm Electropolished stainless steel dome chamber with view port (approximately 22 L capacity)
Power	120 VAC, 50/60 Hz, 1Ø, 20A 220 VAC, 50/60 Hz, 1Ø, 10A
Dimer capacity	Up to 0.28 lbs / 125 gm
Internal Vacuum Pump	5.7 CFM (9.7 m ³ /h) at 50 Hz / 6.9 CFM (11.7 m ³ /h) at 60 Hz 8.4 CFM (14.3 m ³ /h) at 50 Hz / 10 CFM (17 m ³ /h) at 60 Hz 10 CFM Optional remote mount
Controls	Software-driven temperature and pressure controls, fault alarm monitoring

PARYLENE DIMER

SCS Parylene dimer is the chemical precursor in the deposition process, and its quality is critical. We have a dedicated and proprietary manufacturing source to ensure that all SCS dimer meets our precise and demanding standards. The dimer is a stable granular white powder and is available in one-pound (or half-kilogram) containers.

INNOVATIVE SOLUTIONS FOR ADVANCED TECHNOLOGIES

With 50 years of experience and locations around the world, Specialty Coating Systems is the global leader in conformal coating technologies. This extensive coating and application experience is leveraged on each and every customer project, including the industry-leading systems that SCS designs and manufactures. From conformal coating, dispensing and cure systems to ionic contamination test systems, SCS equipment is used in environments that range from university and research labs to high-volume production facilities. SCS' proactive approach to production and quality requirements—testing, validating, documenting and processing—enables customers and their advanced technologies to meet the most challenging industry specifications and quality requirements.



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