

## PDS 2010 Labcoater Parylene N Deposition System



The Labcoater PDS 2010 is a vacuum system used for vapor deposition of Parylene N onto different surfaces. The very thin coating of the polymer provides a very effective chemical and moisture barrier, with high mechanical stability and dielectric constant.

In this system, The parylene is originally in the form of solid diomer, very light-weighted. At temperatures above +80°C the diomer parylene becomes diomer parylene gas (inside the Vaporizer). In the Furnace, at 690°C, the diomer decomposes to monomer gas and then polymerizes onto the samples surface during deposition (room temperature). The result will be a conformal coating throughout the surface of substrate. Parylene will stick to any surface at temperature below 80°C and is hard to remove. The cold trap is to prevent any parylene particles from reaching the vacuum pump. The cold trap is being held at temperature below -80°C, so that it attracts every parylene particle that passes by on its way from the chamber to the pump.

**Safety notes:**

- The chamber base, inlet, and vaporizer reach high temperatures. Wear protective gloves.
- Let Vaporizer and Furnace cool before opening the chamber.
- Although parylene is considered non-toxic, parylene vapor does contain small amounts of corrosive and possibly harmful gases. Therefore, don't breathe it.
- Parylene is hard to remove. So, treat the interior of the chamber with 2% Microsolution after considerable amount of parylene deposition