

Parylene Deposition

PDS 2010 LABCOTER Parylene Deposition System

The conformal deposition process begins with the granular form of Parylene, raw material Dimer, vaporized under vacuum and heated to a dimeric gas. The gas is then pyrolyzed to cleave the dimer to its monomeric form. In the room temperature deposition chamber, the monomer gas deposits as a transparent polymer film. The required thickness of a coating can vary based on the application, but thickness can range from the hundreds of angstroms to several microns.

Parylene Capabilities: Good to excellent adhesion of Parylene to a wide variety of substrates can be achieved by the simple treatment with a dilute solution of an organic silane prior to Parylene coating. Parylene exhibits very little absorption in the visible region and is, therefore, transparent and colorless. Below about 280 nm both Parylene N and C absorb strongly. The Parylenes resist room temperature chemical attack and are insoluble in all organic solvents up to 150° C. Furthermore, chemical resistance and moisture vapor permeability rates for Parylene C are superior to almost all polymeric materials.

Characterization Data

[PDS 2010 LABCOTER Deposition Characterization Data - 2015](#)

[PDS 2010 LABCOTER Thin Parylene Film Characterization Data - 2015](#)