

Drying and Collapse of Hollow Latex

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NNIN Facility utilized: Characterization Facility

λ RESEARCH GOALS

- ◆ Describe the fundamentals behind how hollow latex dries within a coating
- ◆ Discover the mechanisms by which particles collapse during film formation

λ RESULTS

- ◆ Cryo SEM studies show that collapse occurs in the final film formation stages as particles dry
- ◆ Collapse of both nonporous and porous walled hollow latexes are dependent on drying conditions
- ◆ Model developed to explain the collapse

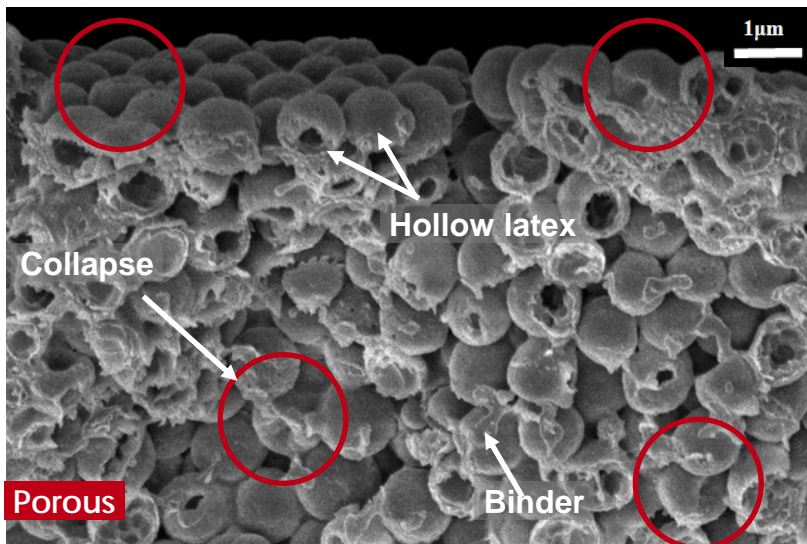


Fig.1. SEM cross-section of coating prepared with hollow latex with porous walls and binder

λ Publication

- ◆ C. M. Cardinal, L. E. Scriven and L. F. Francis, "Drying and Collapse of Hollow Latex," J. Coat. Technol. Res. (2009)