

HYGROSCOPIC PROPERTIES OF ENOXIL-SILICA COMPOSITES

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Abstract. Enoxil-silica composites with various Enoxil-to-silica ratios were prepared by mechanical mixing of the biologically active Enoxil and fumed silica powders. The hygroscopic properties of the composites were studied by the gravimetric method. It has been shown that the use of Enoxil in composites with silica may significantly reduce the Enoxil ability to absorb water from the gas phase and, therefore, improve its storage stability. The strongest hygroscopicity reduction is observed for the composites with Enoxil-to-silica ratio of (0.15÷0.35):1, which corresponds to an approximate monolayer distribution of the Enoxil biomolecules on the silica surface.

Keywords: Enoxil, biomolecule, fumed silica, composite, hygroscopicity.

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