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ADVANCED POLYMER DESIGN FOR ADHESIVES

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Waterborne adhesives have successfully replaced solvent-borne adhesives in many applications. During this replacement process the requirements for adhesives and their applications have become more advanced: High adhesion and high cohesion are needed at the same time and on non-polar surfaces. The adhesives need to be resistant to water whitening and to plasticizers. Coater ready formulations are needed for high speed coating machines. etc.

In order to meet these advanced requirements the designing of polymers and polymer films has become more sophisticated. Most polymer adhesive films are structured, having a heterogeneous morphology. Some examples will be shown of how the adhesive properties depend on the film morphology.