

Identifying the concern

Paraloid B72 bonds failing in hot climate (on archaeological ceramics). On-site, no analytical equipment for testing, limited chemical resources

Identifying the question(s) and/or hypothesis

Are Paraloid B72 and Butvar B98 miscible? Can a new blend with an average T_g be created? Will this function as an ideal adhesive (overcome the concern)?

Identifying resources

(resources may vary based on geographical region and type of space (i.e. on-site vs lab))

1. Adhesives/materials available for testing
2. Solvent available
3. Tools/instrument availability
4. Time
5. Financial resources
6. PPE and regional/site health and safety regulations and controls
7. etc.

Identifying variables, and potential complications with testing

1. Unpredictable nature of blending polymers
2. Partial miscibility
3. Solvent retention
4. Gradual phase separation
5. Effects of environmental conditions
6. Lack of appropriate solvent(s)
7. Limitations of human senses and analytical tools
8. Changes in adhesive performance.
9. etc.