

If you want to find out the circumstances when glue stick wouldn't glue, you need first know the composition of the glue stick. All of them include some kind of polymeric compounds. An example of a synthetic polymer used for the making of glue sticks is caprolactum-eta. This compound is

considered mildly toxic and can irritate the skin at high levels of concentration. Also used by some glue stick manufacturers are acrylic polymers, the same compounds that make up plastics. The benefit to using acrylic polymer is its fast drying characteristic and the greater strength of the bond. According to this, compounds that can prevent of solubility of above mentioned polymers can prevent process of glue. Examples:

- High carbon chain compounds (olefins)
- Alkaline water (with sodium hydroxide or with high content of soap)