

# THRIFTWOOD

## BADGE TRAINING TEAM

Serving the Scout Districts of  
Barking and Dagenham, Brentwood, Hornchurch, Romford & Squirrels Heath

## Types Of Glue

Glue is a compound in a liquid or semi liquid state that is used to adhere or bond items together. Glue comes from either natural or synthetic sources. Some glues and adhesives are becoming extremely strong and they are being used in modern construction and industry. Adhesives in many forms have been in use for centuries, and they have evolved over this time to fit many new applications. There are many types of adhesives available today, each with unique characteristics. In general, adhesives can be grouped into the following categories:

### Water Based

Water based adhesives use water as a carrier or diluting medium. It sets by allowing the water to evaporate or be absorbed by the substrate.

- **Vegetable Glue**



- **Resin Cements**
- **Animal/ Protein Glues**
- **Latex Cements**

### Thermal Adhesives

Thermal adhesives are those adhesives that are brought to a liquid state by heating, and are then applied to the product hot. These adhesives dry by cooling down, and are common in hotmelt adhesives and waxes.

- **Remoistenable hotmelts**
- **Polyamid Hotmelts**
- **Reactive Hotmelts**
- **Waxes**

## Two Part Adhesives

Two part adhesives are made by mixing two or more components together that chemically react to form a cross linked adhesive. In general they are the most expensive glues but they provide a very high strength bond and outstanding performance characteristics. The most common two part adhesives are epoxies, polyurethane, acrylics and silicon's.

- **Epoxies**
- **Polyurethane**



- **Acrylics**
- **Silicon's**

## Moisture Cure Adhesives

Moisture cure adhesives are formulated to react with moisture in the air or in the substrates to form a cured high strength polymer layer. The two best known types are silicone and polyurethane. These are most commonly used as caulking compounds, gasket compounds and sealants.



- **Silicone**
- **Polyurethane**

## Ultraviolet Cure Adhesives

These are adhesives which contain monomers that will cross link upon exposure to ultraviolet light to form a polymer. The curing can happen in less than a second at the right energy levels, so these adhesives are good for high speed situations. Acrylic adhesives lend themselves to ultraviolet curing well, but other forms are also used.

- **U.V. Acrylic**

- U.V. Silicon's
- U.V. Urethane's/acrylic blends
- U.V. Cyanoacrylates

### Cyanoacrylate Adhesives

These are fast setting one component adhesives that are popularly known as crazy glue. Cyanoacrylates are solvent free and they react with moisture on the surfaces of the materials to form a rigid plastic adhesive layer with high strength characteristics. These are expensive compared to other adhesives, but only a very small amount is needed to cover the area to be bonded.



### Anaerobic Adhesives

Anaerobic adhesives cure to a solid polymer in the absence of oxygen. They are commonly used as thread locking components and retaining compounds for metal parts such as bearing and shafts. They remain liquid until they are confined they will cure rapidly. The containers that they are packed in a special because they allow breath ability to keep the glue from settling in the containers.

