

Application instructions for BIOLINK Adhesive Systems

APPLICATION TEMPERATURE

The best temperature for bonding adhesive tapes is between +18°C and +35°C.

Low temperature application is possible for modified adhesive systems, but there may be a compromise on the ultimate bond strength. Guidance can be provided upon request.

SURFACES

The surface/surfaces of the substrate or parts must be dry, clean and free of moisture and condensation.

The surfaces must also be free of oil, fat, dust and other contaminants (including surface and air borne). Porous surfaces can be primed to ensure a uniform, stable surface (guidance can be provided upon request).

CLEANING

The cleaning of the surfaces has to be done with clean cloths together with suitable solvents like alcohol or ethers.

APPLICATION PRESSURE

Adhesive tapes are pressure sensitive (PSA's). The initial application pressure is critical to the ultimate performance of the adhesive tape. The target application pressure is 10-15N/cm², which is best provided by a roller or press. When application only by hand is possible, a firm even and overall pressure is essential and is best provided by use of an applicator or rubber blade 'squeegee'. Firmer adhesive classes (such as the pure acrylics) require more initial application pressure than soft ones.

The full bonding power of hard adhesives is attained between 24 & 72 hours, depending upon the substrates, application pressure and the application environment.

AVOID UNNECESSARY LOAD

Where possible, avoid leverage of the bonded components for as long as possible after assembly. For assembly and design purposes, shear and peel forces have to be evenly distributed across the whole of the bonded surface areas.

During assembly, permanent shear loads should be avoided, as this will adversely effect the viscoelastic bonding. (for example arched, curved or bowed surfaces should be mechanically clamped and held for the bond to be effective).

Typically, good adhesion can be attained on smooth surfaces. For rough surfaces, you need a thicker tape of alternate format. Good or easily bonded surfaces are: metals, high energy surfaces such as smooth wood, ABS, PVC, stone and glass.

Guidance should be sought for low energy surfaces, particularly plastics, where plasticisers may be present, which can adversely effect the bond. These critical surfaces such as polyethylene, polypropylene, rubbers, powder coats, varnishes etc should be tested for performance and compatibility prior to specifications or recommendations for use are made. Fit for purpose approval is the sole responsibility of the customer, but guidance can be provided upon request.

STORAGE

The storage of adhesive tapes should be at room or ambient temperature and at 50-70% relative humidity and out of direct sunlight. Extremes and fluctuations in storage temperature and humidity should be avoided.
