APPLICATION INSTRUCTIONS
for Biolink Adhesive Systems

BIOLINK
tape solutions

Temperature

As a general statement, the best temperature for bonding adhesive tapes is between +15℃ and +30℃.
Low temperature application is possible for modified adhesive systems, but there may be a compromise on the ultimate bond strength.

Surface

The surfaces of the parts must be dry, clean and free of moisture and condensation.
The surfaces must also be free of oil, fat, dust and other contaminants.
Porous surfaces can be primed to ensure a uniform, stable surface.

Cleaning

The cleaning of the surfaces has to be done with clean cloths together with suitable solvents like alcohol or ethers. To remove dust, oil, release agents and other contaminants you can for example use the following solvents: isopropanol-water mixture 50:50, heptane, ethanol, acetone, MEK or other suitable solvents that do not leave residue and do not attack the substrate to be bonded. The selected solvent must be checked thoroughly before being used and the safety in use of solvents should always be considered.

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.

Force and stress

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).

Suitable materials

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

Critical materials

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, silicones, polyurethan, teflon, varnishes should be tested for performance and compatibility prior to specifications or recommendations for use are made.

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.

The information on suitability reflect our current experiences. The data is not binding, are not guarantees or specification and are therefore not suitable for technical specifications. It is the customers sole responsobility to conduct his own testing in order to determine suitability for use.

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