

## **Instructions for Working with Double Sided Adhesive Tape**

### **Working Temperature**

The most favourable working temperature for adhesive tape is between +18°C and 35°C. When contact adhesion is carried out at low temperatures, commencement of the adhesive action is reduced.

### **Surfaces**

The surfaces of the items to be joined must be dry and clean. Dampness precipitation, in any form, on the surfaces to be attached (e.g. caused by bringing cold items into warmer rooms) is to be avoided. The joining items must be free from dust, fat, oil and separating agents. Loose paints or layers of coating must be removed or made firm.

### **Cleaning**

For cleaning the surfaces only clean cloth should be used with material compatible solvents such as benzene, alcohol, ester or ketones.

### **Applying high pressure will produce full surface contact**

The attachment pressure (circa 10.20 N/cm<sup>2</sup>) is carried out by using a pressure roller or a surface press. Hard adjusted (dry) adhesive tape requires a higher applied pressure than soft ones. The full adhesive strength of hard adhesive agents will only be achieved after min. 24 hours. Any loading of the adhesion should only take place after that period.

### **Avoid unessential loading**

Lever action (cleavage loading) should be strongly avoided. Shearing and pulling loads must be able to be distributed over the complete adhesive area. Permanent loadings affect the durable elasticity bondage (e.g. plates for arched surfaced must be pre-formed to suit). Shearings at the ends of joining items must be avoided.

### **Surface condition**

Good adhesive connections are being achieved with smooth surfaces; rough surfaces require thicker adhesive tapes. Problem-free joining partners are: metals, lacquered surfaces, high energy plastics (such as ABS, polycarbonate, hard PVC, smooth wood, stone and glass). A water-drop test is suitable to determine whether a surface has good or less favourable adhesion properties. Therefore: clean the surface and moisten with water.

Picture 1:

If droplets form as shown in the picture, the surface has low energy. Joining by adhesion may be problematic

Picture 2:

If the water creates a film or spreads, a high energy surface, thus a surface with good adhesion properties can be assumed.

Attention must be given to softened plastics. In such cases the softener may change the adhesive layer which may impair the firmness of the adhesion.

Double-sided adhesive tapes are available for most application cases; however, in the case of sensitive surfaces (such as polyethylene, polypropylene, plastics with slip additives, coating powder, rubber) relevant tests should be carried out as a matter of principle.

**Storage**

Storing magnetic tapes with self adhesive coating must be carried out at room temperature and normal humidity (50 – 70%). We recommend processing of the magnetic tape within 6 months after delivery.

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