

## How to achieve a Good Bond

### Right Choice of Adhesive

A great number of adhesives are available to choose from. The proper selection regarding type and form depends on the material specifications, the performance requirements of the intended use and the adhesive bonding process.

### Good Joint Design

A well designed joint can increase the strength by combining the advantages of mechanical design with the adhesive bonding strength and meet the requirements of the bonded parts.

### Surface Treatment

A clean surface of the adherend is an absolute MUST for a good bond. If dirt, oil, moisture, oxide and other layers are not removed, the adhesive will bond to these weak boundary layers instead of the real surface of the adherend. In addition the surface must be reasonably smooth and chemically receptive to the chosen adhesive. Adhesive technology determines the following surface treatments:

Surface Treatment		
Surface Preparation	Surface Pre-Treatment	Surface Post-Treatment
<ul style="list-style-type: none"> <li>• Cleaning</li> <li>• Degreasing</li> <li>• Alignment / Marking</li> </ul>	<ul style="list-style-type: none"> <li>• Mechanical methods</li> <li>• Chemical methods</li> <li>• Physical methods</li> </ul>	<ul style="list-style-type: none"> <li>• Primers</li> <li>• Accelerators</li> <li>• Activators</li> </ul>

The degree and extend of surface treatment depends greatly on the material and condition of the substrates and the required strength of the bonding application. Surface treatment to a large extent determines how well and for how long a bond will hold.

### Wetting

Wetting is the flow and covering of the substrate surface by the liquid adhesive. Good wetting maximizes the contact area between the substrate and the adhesive over which the forces of adhesion will be achieved. – Wetting can be improved by appropriate surface treatment.

### Adhesive Bonding Process

Successful bonding is a result of a chemical process that needs to be followed properly.

Two main steps are involved:

- Application of the adhesive
- Curing process (requiring the right temperature, humidity, pressure and fixture time)

The adhesive must be exposed to the specified conditions under which it will be capable to convert into a solid form.

Please contact our competent customer support service if you have further questions regarding adhesive & sealant applications

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