

# Reactive Acrylic Adhesive Technology

## What is it?

The products of Sika's reactive acrylic adhesive technology are known as ADP (Acrylic Double Performance) adhesives. Recently developed by Sika, this easy-to-use polymer technology is based on the chemistry of acrylates. ADP adhesives are low in odour and supplied as rapid-hardening, flexibilized 2-component systems. Component A contains the reactive resin, component B acts as the initiator for the chemical reaction. Polymerisation takes place when the two components are mixed together.

## How is it used?

ADP adhesives exhibit a paste-like, non-sag consistency. They are suitable for a bond line of 1–3 mm thickness and are applied by using a cartridge gun or pump-operated dispensing equipment incorporating a static mixer.

Application and curing are carried out at room temperature. Once bonded, the components should not be moved while the chemical reaction is taking place. Although curing occurs rapidly in a matter of minutes, the available working time is relatively long.

## Where is it used?

ADP adhesives are rapid-hardening and flexibilised and can be used for structural and semi-structural joints. Suitable for application on a wide variety of substrates, they are ideal for the fast production processes used for example in the appliances and equipment industry. They are particularly effective for bonding stainless steel, coated metals and plastics.

Typical applications include:

- Household appliances and machines
- Furnishings and fittings
- Neon signs
- Window profiles and trims

## Technological Benefits

The development of ADP technology has led to a new generation of rapid-hardening, non-sag adhesives. These offer many of the benefits of elastic bonding found

with 1-component polyurethanes, but with higher levels of strength. Specific product advantages include:

- Shorter production cycles through very rapid strength development
- Excellent adhesion to a wide range of metals, stainless steel, galvanized steel and plastics, with minimum surface preparation
- Low in odour compared with conventional acrylic adhesives
- Simplifies production through ability to accommodate manufacturing tolerances up to 3 mm
- Simple, non-critical mixing of components, eliminating risk of processing errors
- A better end product thanks to the many benefits of elastic bonding (ability to dampen vibrations, high impact strength and good low-temperature characteristics)

## Product Examples

- SikaFast®-5211 (3 minutes open time)
- SikaFast®-5221 (9 minutes open time)



Bonding of plastics replaces time-consuming mechanical fastenings, e.g. in the production of neon signs

Shorter production cycles, e.g. in the manufacture of furnishings and fittings, thanks to ADP technology's ideal combination of rapid strength development and long open time



New possibilities in the design and production of household appliances are opened up by Sika's reactive acrylic adhesives, which bond extremely well to many metals and plastics with minimum surface preparation

Note: All products sold subject to our current General Terms of Sale. Please refer to the relevant Technical Data Sheet(s) and Safety Data Sheet(s) before using any of these products.

