

# **PRODUCT INSTALLATION DATA**

Spida Fixings's patented features give it them a superior bond, inherent strength and high stress dissipation allowing them to be used to build, maintain, repair and overhaul products made from components without compromising structural integrity or increasing cost, weight or installation time.

#### Spida Fixings are effective on a variety of materials:

- Carbon fibre and other composites
  Metals
- Woods

Plastics

Concrete

# Spida Fixings work with a variety of adhesives, moulding and welding techniques to give you the perfect solution for any application.

- Bonding (works on any surface)
- Welding (metal and plastic welding)
- Press fit (into a pre-moulded thermoplastic enclosure)
- Moulding

Hand lay-up, Open mould, Pre-preg, Hot press, Vacuum tooling, Injection moulding, Concrete encapsulation.

#### **BOND SPIDA ON WITH ADHESIVE**

Apply adhesive to the base and positions it in place. With Spida Fixings not only is it possible to use this method for holding accessory structures (e.g. wiring) in place; it is possible to use an epoxy bonded Spida Fixing to secure even the most structurally important components that must withstand high forces (e.g. seating).

We offer a range of fixings for different applications. Our fixings with flat bases are designed for welding and certain specialist adhesives (e.g. acrylics) that require minimal bond line. However our more popular concave bases are better for most applications including bonding with epoxy adhesives.

Whether installing a bonded fixing by hand or using a jig there is a natural tendency for installers to press 'hard' when positioning it. This results in adhesive being squashed out from under the base leaving only a thin layer. Our research has shown that when using an exothermic adhesive (i.e. adhesives that cure by creating their own heat when mixed) such as epoxy, this thin layer does not usually reach 'peak exotherm' (i.e. optimal temperature) under real life conditions and therefore the bond is not fully cured. This is why we developed Spida fixings with concave bases that retain the optimal depth of adhesive under them.

### A balanced footing

Our concave base shape self-levels the fixing by forcing it to land level to the substrate even when loaded with a viscous adhesive. This is because the concavity retains a space for the adhesive whilst the edge of the base levels the fixing. This is one reason why we recommend our concave bases for exothermic adhesives such as epoxy. Retaining a similar level of adhesive under a flat base would make it difficult to ensure perpendicularity. The slightest deviation and the adhesive may not spread out evenly under the base leaving an area with less or zero adhesive, which will weaken the bond. We therefore only recommend our flat bases for welding and non-exothermic adhesives such as acrylics that require a minimal bond line depth of adhesive. Also, if a concave base is accidentally overloaded with adhesive this can be more easily wiped away from the edges as the fixing is not 'floating' on a pool of adhesive like with flat based fixings.

#### MOULDING SPIDA INTO THE STRUCTURE

An alternative installation method is to mould a Spida into a structure (using hand layup, vacuum moulding, injection moulding etc.). This saves manufacturing time and increases structural integrity. Our propitiatory AdMax surface treatment provides the perfect surface to achieve a high strength bond in your mould. And you can be sure that your Spida can resist torsional forces with our patented castellations on the base.

### WELD SPIDA ONTO METAL OR PLASTIC

Select a Spida with a flat, round base and no AdMax for welding. Spida is constructed from high performance metals and constructed in a way that it can withstand the highest of loads passed through it even when welded.

## www.spidafix.com. For more information: phone +44 (0) 1425 620156 or email sales@spidafix.com

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## **INSTALLATION PROCEDURE**

- We suggest a two-part adhesive, for example Araldite
- Tape the area on which you are putting the fixing
- Abrade the area with a suitable abrasive 120 grit
- Abrade in a random pattern
- Wipe the area with a cloth using solvent
- Solvent to be used either IPA or acetone
- Apply adhesive a small pea sized amount on the area
- Massage the adhesive into the area with a wooden spatula or gloved finger
- Apply a pea size amount to the fixing and massage the adhesive into the fixing
- Apply more adhesive to the fixing
- Firmly push the fixing down on to chosen location
- Leave to cure

### **Disclaimer:**

The data provided in this document is advisory only. The User is responsible for seeking advice about adhesives from the relevant supplier or manufacturer. The responsibility for assessment of the parts as fit-for purpose falls with the User. Self-certification that the parts meet the user's performance requirements is advised. Adhesion Technologies or it's subsidiaries cannot be held responsible for the application of any fixing product supplied, irrespective of the data provided in this document.

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