



Data Sheet for products coded:
BBF03, BBF04 & BBF16

FS ACRYLIC

High strength structural bonding adhesive



BigBond FS Acrylic is a two part 'A&B' component system, which is fast setting when mixed *via* a static mix nozzle at room temperatures. Because it is a high viscosity non-sagging material, the mixed material is ideal for all types of gap filling requirements on steel, aluminium, polycarbonates and general plastics. It is also very good on vertical surface bonds, exhibiting excellent structural strength even without priming the surfaces.

Because of its macro structure the bonds show excellent durability, high peel strength (even in big gaps) and excellent solvent and environmental resistance.

Typical uses of BigBond FS Acrylic

Structural joining of metals, plastics, composite bonding and on ceramics where a high impact strength is required. Applications include wind turbines, vehicle roofs, fibreglass, sports goods, automotive spoilers, venting/ducting and in many types of housing.

Application:

For best results use on clean, dry substrates, at between 10°C and 30°C. Insert the cartridge into the slot on the applicator gun. Once the cartridge is secure, remove the cartridge cap and level the pistons by dispensing a small amount of material, before attaching the mixing nozzle. Attach the mixing nozzle and dispense adhesive until a uniform colour is evident.

Apply the mixed adhesive to *one joint surface only*; immediately bring the two surfaces into contact and apply a steady pressure. After use, the cartridge can be re-sealed by removing the mixing nozzle, cleaning the two cartridge openings and replacing the cartridge cap.

Physical data:

Typical uncured properties:

Adhesive:	Adhesive: Methyl-methacrylate	Activator: Methyl-methacrylate
Appearance:	Off-white gel	Amber-like gel
Specific Gravity @25°C:	0.97	0.95
Viscosity @ 25°C:	130,000 to 200,000 cps	150,000 to 200,000 cps
	(Brookfield DVII, Spindle 7, 2.5rpm)	

Flash Point (TCC):	11°C	11°C
Operating Temp.:	- 40°C to +180°C	

Properties when mixed:

	FS	SS
Appearance:	Pale yellow paste	

Working Time @ 20° C:	5 - 7 minutes
Fixture Time @ 20° C:	10 - 12 minutes
Mix Ratio:	1:1

Typical cured properties:

Average Shrinkage:	5% (7 Days)
Hardness:	75 Shore D (Approx.)

ASTM D1002 Lapshears (Tensile result):

On steel / steel:	Up to 30 N/mm ²
On aluminium / aluminium:	Up to 27 N/mm ²
On *polycarbonates:	Up to 13 N/mm ²
On *ABS / ABS:	Up to 8 N/mm ²

* (Substrate failure)

Suitable Substrates: ABS, Acrylics, GRP, FRP, Styrenes, Urethanes

Vinyl, Steel, Aluminium, Stainless Steel, Gelcoats, Polyesters, PVC

Solvent and Environmental Resistance:

Formulated to meet ASTM D1002 on steel lapshears with a 5mm gap size cured for 1 week @ 23°C:

	Temp.	1000 Hrs.	2000 Hrs.
RH 100%:	40°C	60%	35%
Salt Spray:	50°C	75%	60%
Water Glycol:	20°C	75%	65%
Motor Oil:	40°C	75%	93%
Gasoline:	40°C	95%	92%
IPA:	40°C	75%	90%

Storage:

BigBond FS Acrylic adhesive should ideally be stored in a cool, dry location in unopened containers at a temperature between 8° and 28°C (46° to 82°F) unless otherwise labeled; optimal storage is at the lower half of this range. For specific shelf-life information, contact BigHead Bonding Fasteners Ltd. at the address below.

NB: ensure the cleaned end-plug is replaced in the same orientation as supplied on the original cartridge; this can be achieved by marking the position of the plug prior to initial removal.

Important Notices:

Data contained in this document is for information only and is believed to be reliable. BigHead Bonding Fasteners Ltd. (BBFL) can accept no responsibility whatsoever for adhesive bonding performance obtained by others over whose working methods BBFL has no control. It is the user's responsibility to determine the product's suitability for any specific purpose. BBFL may provide a sample upon request.

Before using this product please ensure you have been supplied with & carefully read the following important information:

- 1. The Hazard label (complying with the latest CDG/CPL regulations) applied to the container.**
- 2. The relevant MSDS (Material Safety Data Sheet) for this product.**

