

BONDING PASTES

Polyester, Vinyl Ester and
Hybrid Bonding Pastes



 **ADHESIVES** by
SCOTT BADER

BONDING PASTES

Scott Bader bonding pastes are used in a wide range of applications, in a variety of markets. The key features and benefits to customers are;

- ▶ Range of densities
- ▶ Range of gel times
- ▶ Colour change
- ▶ Low shrinkage
- ▶ Range of substrates – GRP, wood, stainless steel or aluminium
- ▶ Ease of application

Stronger, Lighter, Quicker, Tougher.

The Right Performance

Scott Bader has formulated a wide range of bonding pastes over the last 40 years to meet the demands of our customers' varied applications.

The use of a variety of chemistries including our unique urethane acrylates has created a range of bonding pastes which are unique to the market. Our bonding pastes have been granted numerous approvals from design authorities around the world and we are a trusted partner for our customers.

Challenging Conventions

The tailored properties of Scott Bader's bonding pastes have allowed our customers to maximise the performance of their structures in a cost effective manner. This has challenged the conventional thinking on GRP design, while opening up many opportunities for our customers.

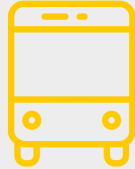
Scott Bader bonding pastes are now used in a wide range of demanding applications across the marine, transport, wind, as well as building and construction sectors within the FRP industry.



Chemistry and Bonding



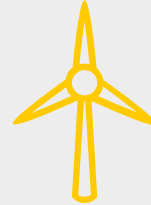
Marine
from kayaks
to super yachts



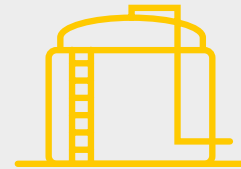
Land & transportation
buses, coaches, cars,
trains and trucks



Building & construction
doors, windows
and cladding



Wind energy
blades, housing
and nacelles



Tanks & pipes
storage tanks,
joining of GRP pipes



Agricultural vehicles
tractors, diggers, off-road
and combine harvesters

Bonding Pastes Dispensing Equipment

- ▶ Pails and drums can be dispensed using an automated 50:1 dispensing machine
- ▶ Scott Bader technical support can provide advice on appropriate dispensing equipment and catalyst usage



Our Bonding Pastes

General Purpose Bonding Pastes

Materials suitable for non-structural GRP applications. The extensive range includes both orthophthalic and isophthalic bonding pastes with a variety of features, ensuring customers can find the right material for their application.

Fast Cure Bonding Pastes

Materials suitable for non-structural GRP applications that cure very rapidly for either repair or fast assembly applications.

Low Density Bonding Pastes/ Core Bonder

Used to bond polyester laminates and to also bond polyester laminates to balsa, PVC and PU core materials in sandwich structures.

Fibre Filled Bonding Pastes

Bonding pastes containing short glass fibres to maximise bonding strength and provide excellent gap filling/ bridging properties.

High Performance Bonding Pastes

These materials are formulated with the addition of unique Scott Bader urethane acrylate polymers, providing improved fatigue resistance and bonding strengths, particularly when compared to general purpose bonding pastes. These materials can be used for some structural applications.

Fairing Compounds

Bonding pastes which are smooth, fast setting and easily sandable. They are used for smoothing out rough fibreglass surfaces.



Product Range Overview

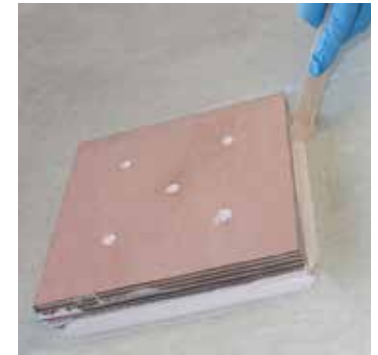
Category	Name	Description	Geltime (mins) ¹	Colour Change	Elongation at Break (%)	Lap Shear (MPa)	Specific Gravity (g/ml)
General Purpose	B39W	Pumpable polyester-based bonding paste with gap filling properties	55	None (Grey)	1.4	4	1.05
	90-82PA	General purpose orthophthalic bonding paste	12	Blue to White	2.2	5*	1.35
High Performance	621CC 45	Urethane acrylate/ isophthalic polyester bonding paste	25	Blue to Grey	3.3	10	1.25
	621CC 85	Urethane acrylate/ isophthalic polyester bonding paste	50	Blue to Grey	3.3	10	1.25
Fast Cure	90-78PA	Fast cure orthophthalic bonding paste	8	None (White)	1.0	5*	1.30
Light Weight	90-84PA	Lightweight orthophthalic bonding paste with low exotherm	30	Blue to Cream	6.0	4	0.60
Fibre Filled	90-86PA	Polyester bonding paste with short fibres	10	Blue to Light Pink	2.1	4*	1.15
Core-Bond	B72R	Lightweight, polyester-based core adhesive for foams and balsa	55	Blue to White	2.1	5*	0.70
Fairing Compound	F26R	Fast setting polyester-based fairing compound with good sanding properties	3	None (Light Pink)	0.6	2	0.70

¹ 1-2% Butanox[®] M-50 @25°C Refer to TDS for specific catalyst levels

Values are based on substrate failure where marked by *

Bonding Paste Applications

Bonding pastes are designed specifically to meet the demands of a wide variety of applications. The range has been carefully formulated to ensure ease of application, while retaining exceptional handling properties.



Case Study

BP 621CC has good handling properties and no sagging on vertical surfaces.

"Our own tests with 30mm thick layers gave very little shrinkage and low exotherm (measured at 65°C). Both the bonding strength and the non-shrinkage properties are big advantages to us."

Senior Engineer at Nimbus, Scandinavia



Nimbus 356 Coupé

Case Study

LaserPerformance Europe manufactures small Olympic sailboat using Scott Bader range of products

About LaserPerformance

LaserPerformance is a global lifestyle brand and the world's largest manufacturer of small sailboats. LaserPerformance proudly manufactures many iconic sailboats including: Laser, Sunfish, Laser Pico, Laser Bahia, Bug, Z420, and more. As a lifestyle brand, it distributes water sports related products and sailboats which have recently been used at the Rio 2016 Olympics.

Scott Bader Product Application

- ▶ **Poly-Bond® B37 W, Poly-Bond® B55 DMC and Core-Bond® B72 R** are vital components in the core bonding and mast mounting processes
- ▶ Scott Bader Asia now supplies LaserPerformance with **B39 LDS** and **Crestabond® M1-60HV**

Benefits/ Advantages

- ▶ Technology developed and fully supported by Scott Bader
- ▶ Excellent customer service
- ▶ Improved stiffness
- ▶ Cost efficiencies compared to similar competitor resins
- ▶ High quality products
- ▶ Over 60 years' of technical expertise





Making a **positive** difference

Scott Bader Group Companies - leading composites innovation for over 60 years

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