

Brown Brothers Distribution Ltd

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Product Data Sheet

FOR PROFESSIONAL USE ONLY

Reference: Panel Bonding Adhesive

Product Code: BDPBPBA195

Description

Panel Bonding Adhesive is a two-component structural epoxy adhesive system intended for use in metal and composite panel bonding. Bond line thickness is controlled by 0.25mm glass beads comprised in the adhesive.

Features & Benefits

- Room temperature curing, heat acceleration possible.
- Long open time of 60 min, handling within 4 hours @ 23°C, full cure in 24 hours.
- Bond line thickness is controlled by 0.25mm glass beads.
- Withstands automotive e-coat, powder prime, and paint oven temperatures up to 230°C.
- Spot-weldable (uncured!).
- Excellent corrosion protection.
- High energy absorption and very good crash performance.

Cure Characteristics

Open Time	60 minutes
Working Time	90 minutes
Handling Time	4 hours
Full Cure	24 hours

Open Time - also "wet time" or "pot life". The time the adhesive is wet enough to bond to a second substrate being mated in the bed of adhesive. The open time is temperature dependant. All data given was measured at 23°C.

Working Time - During working time the already joined part can still be re-positioned. Do not take the bonded assembly apart.

Handling Time - Time when the adhesive is hard enough to hold on its own. The handling strength of freshly bonded parts depends on type and height of outside forces, that impact the bond. Typically 0.75 to 1MPa is needed. In all cases peel forces, that affect the bond need to be reduced as far as possible. The part needs to be clamped or fixed until handling strength is reached.

Application Guide

Cure	Ambient or heat accelerated cure (max 150°C)
Optimum Bondline Thickness	0.25mm (glass bead incorporated)
Paint Bake	Up to 230°C
Gap Filling	Very good
Sag Resistance	For vertical applications
Consumption 1/4" Diameter Round Bead	Approximately 35g / m
Consumption 1/2" Diameter Round Bead	Approximately 141g / m

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Surface Preparation

Substrate

Metal

Composite (SMC, RTM, CFRP)

Surface preparation - Ambient Cure

Abrasion & Degreasing

Abrasion

Surface preparation - Heat Cure

Abrasion & Degreasing

Solvent wipe

Lap Shear Strength

Substrate

Cold Rolled Steel (1.5mm)

Cold Rolled Steel (0.8mm)

Hot Dipped Galvanized Steel (0.7mm)

Alloyed Galvanized Steel (0.7mm)

6111 Aluminium Alloy (0.9mm)

5052 Aluminium Alloy (0.6mm)

ABS

SMC

Lap Shear Value (MPa)

27.8

23.7

12.6

18.5

11.3

12.4

3.0

8.8

Failure Mode

Cohesive Failure

Steel Deformation

Steel Deformation

Cohesive Failure

Mixed Failure (COH/ADH)

Mixed Failure (COH/ADH)

Substrate Failure

Substrate Failure

Test Conditions: preparation: Solvent wipe, Orbital Abrasion (80rgd), Bond Line: 0.25mm, Cure: 1w@23°C, Test temperature: 23°C, Crosshead speed: 13mm/min.

Handling

Panel Bonding Adhesive contains ingredients which could be harmful if improperly handled. Contact with skin and eyes should be avoided and necessary protective equipment and clothing should be worn.

See separate Material Safety Data Sheet (MSDS).

Packaging

Panel Bonding Adhesive is supplied in a 195ml universal cartridge. This can be used with the Bodyline Professional Caulking Gun (BPCG).

Shelf Life and Storage

Cartridges have a shelf life of 24 months from date of filling, when stored indoors between 15°C to 32°C.

After dispensing the used mixer should be left attached to the cartridge to ensure sealing from humidity.

The information contained in this sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions. Any other use or process is the responsibility of the user.

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For Health and Safety information please refer to the material Safety Data Sheet, also available at: www.brownbrothers.com

For further information please contact:

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