

# BONDPRO 210

## EPOXY ADHESIVE



### PRODUCT DESCRIPTION

**BONDPRO 210** is a fast cure toughened epoxy adhesive offering outstanding performance in numerous bonding applications. It is ideally suited for assembly of components constructed from different materials.

- 15 Minutes working time at 18°C
- Cured solid in 90 minutes
- Mix ratio by volume 1:1
- Bonds multiple substrates
- Black cured colour

### SUITABLE SUBSTRATES

**BONDPRO 210** offers strong adhesion to various substrates, including wood, metal, ceramics, certain plastics, and composites. It creates durable bonds with exceptional shear strength.

### HEALTH AND SAFETY

Gurit produces a separate full Safety Data Sheet for all hazardous products. Please ensure that you have the correct SDS to hand for the materials you are using before commencing work.

### STORAGE AND HANDLING

Storage should be in a warm dry place out of direct sunlight and protected from frost. The storage temperature should be kept constant between 10°C and 25°C, fluctuations in temperature can cause crystallization.

BONDPRO 210 Resin	14 months at 10-25°C
BONDPRO 210 Hardener	14 months at 10-25°C

### SURFACE PREPARATION

Ensure surfaces are clean, dry, and free of grease before applying the adhesive. Use an appropriate solvent, such as acetone or isopropanol, to degrease the surfaces. For metals like aluminium, copper, and their alloys, light abrasion with an emery cloth or similar material can help remove the oxide layer and improve adhesion.

### UNCURED COMPONENT PROPERTIES

	BONDPRO 210 RESIN	BONDPRO 210 HARDENER
<b>Appearance</b>	Black	Orange
<b>Viscosity @ 25°C</b>	245 +/- 30 P	69 +/- 7 P
<b>Density @ 21°C</b>	1.18	1.05

### APPLICATION PROPERTIES

<b>Mix Ratio by Volume</b>	1:1
<b>Gelation Time @ 21°C</b>	15 Minutes
<b>Handling Time @ 21°C</b>	90 Minutes
<b>Application Thickness @ 21°C</b>	0.5 – 5 mm
<b>Glass Transition DSC Tg°C</b>	70 - 75°C

### BONDING PERFORMANCE (Metals)

<b>Lap Shear Strength** (Steel)</b>	20-22 MPa
<b>Lap Shear Strength ** (Aluminium)</b>	20-22 MPa
<b>Cleavage Strength* (Steel)</b>	4.5 - 5.5 kN

\*BS 5350 Part C1 \*\*BS 5350 Part C5



## DIRECTIONS FOR USE

### Cartridge Application Instructions:

#### Prepare the Cartridge:

- Insert the cartridge into the application gun and align the plunger.
- Remove the cartridge cap and dispense a small amount until both components flow evenly.
- Attach the static mixer to the cartridge and begin dispensing, ensuring the adhesive is fully mixed (uniform black with no streaks).

#### Application:

- Apply the mixed adhesive to one of the substrates.

#### Assembly:

- Join the parts before the adhesive gels which is typically 10-15 minutes after mixing. The gelation time will depend on application thickness and ambient temperature.

#### Pot Life Considerations:

- Large quantities or higher temperatures will shorten the working time.

#### Curing Process:

- Apply clamping pressure for between 1 to 2 hours or until the assembly reaches handling strength.
- Cure is achieved after 2 days at 21°C (73°F).

*For professional or industrial use only. This Technical Datasheet (TDS) provides general guidelines and does not serve as a formal specification.*

## BONDING PERFORMANCE (Plastics)

### Lap Shear Strength\*\*

Polycarbonate	2 - 3 MPa
ABS	2.5 - 3 MPa
Acrylic	2 - 2.5 MPa
Nylon 6	2.5 - 2.8 MPa
PVC	2.5 - 3 MPa
G10 Epoxy Laminate	13 - 14 MPa

\*\*BS 5350 Part C5

## STRENGTH DEVELOPMENT

Cure Time @ 21°C	Lap Shear Strength
14 Hours	8 MPa
30 Hours	13 MPa
54 Hours	17 MPa

## CURED MECHANICAL PROPERTIES

Tensile Strength (ISO 527-2)	30-35 MPa
Tensile Modulus (ISO 527-2)	1.8-2 GPa
Tensile Elongation (ISO 527-2)	15 - 20%
3 Point Flexural Strength (ISO 178)	55-60 MPa
3 Point Flexural Modulus (ISO 178)	1.7-1.9 GPa
3 Point Flexural Strain (ISO 178)	5%

\*Test temperature 23°C

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Gurit is continuously reviewing and updating literature. Please ensure that you have the current version by contacting your sales contact and quoting the revision number in the bottom left-hand corner of this page.

## CONTACT INFORMATION

Please see local contact information at [www.gurit.com](http://www.gurit.com)

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