

# SPABOND™ 730

## RAPID STRUCTURAL ADHESIVE



**Spabond™ 730 is a fast curing structural adhesive designed for applications where quick clamp times are important. It has a simple 1:1 by weight and volume mix ratio.**

It can be used to bond together a wide variety of dissimilar materials and has been designed to give a durable high strength bond. Spabond™ 730 is available in cartridges.

- Fast clamp time, high strength, structural adhesive
- Gels in 10 minutes, solid in 2 hours
- Good degree of cure after 6 hours at ambient
- Designed Sag resistance of 14mm at 20°C
- Available in 400ml 2 component cartridges
- Mix Ratio by Volume or Weight 1:1

## INSTRUCTIONS FOR USE

### APPLICATION

The product is optimised for use at 15 - 25°C. At lower temperatures the components thicken and may eventually become unworkable. To ensure accurate mixing and good workability pre-warm the resin & hardener as well as the surfaces to be bonded before use. Recommend maximum relative humidity for use is 70%.

### SURFACE PREPARATION

Before using the product ensure that surfaces to be bonded are clean, dry and dust-free. Prepare all surfaces by abrading with medium grit paper or other suitable abrasive, remove dust then wipe with acetone.

Metals - requires a chemical pre-treatment to create the best bond. Please contact Gurit for a Guide to Surface Preparation and Pre-treatments.

Polyester or vinyl ester - ensure laminates are fully cured before bonding, then prepare as above.

Epoxy laminates - it is recommended to use a suitable Peel Ply as the last stage in their manufacture, otherwise prepare as above. Trials may be required to test Peel Ply suitability.

Ferrocement - etch with 5% solution of hydrochloric acid, wash with fresh water, then dry.

Timber - sand with abrasive paper across grain. Degrease oily timber with a fast evaporating solvent (e.g. acetone). For resinous or gummy timber, etch with 2% caustic soda solution, wash off with fresh water and dry.

### MIXING & HANDLING

When mixing by hand, mix thoroughly for at least one minute, paying particular attention to the sides and bottom of the mixing vessel, to ensure no streaks remain. Once fully mixed the adhesive should have a uniform colour. Use from pot quickly to maximise resin working life. With Spabond 730 Adhesive, mix enough for 5-7 minutes use. This product is highly exothermic and care should be taken when disposing of unused mixed material..

### CARTRIDGE USE

If dispensing product from a two component cartridge, first prime the cartridge by dispensing slowly until both resin and hardener are at the outlet of the cartridge. Secondly, clean the outlet and attach the mixing head. When starting a new cartridge, dispense and discard a small amount of adhesive (typically the length of a mix head) prior to applying adhesive to the substrate, in order to ensure thorough mixing of the system. If using a pneumatic gun, regulate supply air pressure to a maximum of 4 Bar. Relieve the pressure on the cartridge after use.

### TRANSPORT & STORAGE

The resin and hardener should be kept in securely closed containers during transport and storage. Any accidental spillage should be soaked up with sand, sawdust, cotton waste or any other absorbent material. The area should then be washed clean (see appropriate Safety Data Sheet). Adequate long term storage conditions will result in a shelf life, as per table, from the date of manufacture for both the resin and hardeners, see product container label for expiry date.

| COMPONENT            | UNITS  | 10 – 25°C |
|----------------------|--------|-----------|
| Spabond 730 Resin    | months | 14        |
| Spabond 730 Hardener | months | 14        |

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, cyclic fluctuations in temperature can cause crystallization. Containers should be firmly closed. Hardener, in particular, will suffer serious degradation if left exposed to air. Hardeners may darken over time, however the physical properties are not affected.

## SPABOND™ 730

This product summary is intended for use in conjunction with further advice provided under the Instructions for Use section. All data has been generated from typical production material and does not constitute a product specification.

| PROPERTY            | UNITS             | SPABOND 730 RESIN | SPABOND 730 HARDENER | MIXED SYSTEM | TEST METHOD |
|---------------------|-------------------|-------------------|----------------------|--------------|-------------|
| Appearance - colour | Description       | Opaque            | 4                    | 3            | -           |
| Appearance - form   | Description       | Thixotropic paste |                      |              |             |
| Mix ratio by weight | Parts by weight   | 100               | 100                  | -            | -           |
| Mix ratio by volume | Parts by volume   | 100               | 100                  | -            | -           |
| Density at 21 °C    | g/cm <sup>3</sup> | 1.13              | 1.13                 | 1.13         | Archimedes  |

## COMPONENT & MIXED SYSTEM PROPERTIES

| PROPERTY  | UNITS   | 15°C | 20°C | 25°C | 30°C | TEST METHOD     |
|---|---------|------|------|------|------|-----------------|
| Spabond™ 730 Resin Viscosity                    | P       | 1110 | 434  | 174  | 106  | -               |
| Spabond™ 730 Hardener Viscosity                 | P       | 793  | 387  | 191  | 89   | -               |
| Initial Mixed System Viscosity                  | P       | 712  | 337  | 192  | 81   | -               |
| Pot-life (150g, in water)*                      | hrs:min | -    | 0:08 | 0:07 | -    | -)              |
| Clamp Time<br>(time to 2kN cleavage strength) * | hrs:min | -    | 2:30 | -    | 1:10 | BS 5350 Part C1 |
| Sag resistance*                                 | mm      | -    | 14   | 12   | -    | -               |

## ADHESIVE PERFORMANCE

| MECHANICAL PROPERTIES                  | SYMBOL                | UNITS | 28 DAYS AT 21°C | 16 HOURS AT 50°C** | TEST STANDARD   |
|--|-----------------------|-------|-----------------|--------------------|-----------------|
| Cleavage on steel<br>(0.5mm bondline)  | F <sub>cleavage</sub> | kN    | 4.9             | 6.0                | BS 5350 Part C1 |
| Lap shear on steel<br>(0.5mm bondline) | τ <sub>steel</sub>    | MPa   | 23              | 24                 | BS 5350 Part C5 |

## CURED MECHANICAL AND THERMAL PROPERTIES

| MECHANICAL PROPERTIES        | SYMBOL           | UNITS             | 28 DAYS AT 21°C | 16 HOURS AT 50°C** | TEST STANDARD     |
|------------------------------|------------------|-------------------|-----------------|--------------------|-------------------|
| Glass Transition Temperature | T <sub>g2</sub>  | °C                | 48              | 63                 | ISO 11357-2 (DSC) |
| Cured Density                | ρ <sub>ply</sub> | g/cm <sup>3</sup> | 1.10            | 1.10               | Archimedes        |
| Volumetric Shrinkage         |                  | %                 | 2.7             | 2.7                | Archimedes        |

\*working time properties are highly subjective to ambient conditions and should be used as an approximate guideline

\*\*initial cure of 24 hours at 21°C

## HEALTH AND SAFETY

The following points must be considered:

1. Skin contact must be avoided by wearing protective gloves. Gurit recommends the use of disposable nitrile gloves for most applications. The use of barrier creams is not recommended, but to preserve skin condition a moisturising cream should be used after washing.
2. Protective clothing should be worn when mixing, laminating or sanding. Contaminated work clothes should be thoroughly cleaned before re-use.
3. Eye protection should be worn if there is a risk of resin, hardener, solvent or dust entering the eyes. If this occurs flush the eye with water for 15 minutes, holding the eyelid open, and seek medical attention.
4. Ensure adequate ventilation in work areas. Respiratory protection should be worn if there is insufficient ventilation. Solvent vapours should not be inhaled as they can cause dizziness, headaches, loss of consciousness and can have long term health effects.
5. If the skin becomes contaminated, then the area must be immediately cleansed. The use of resin-removing cleansers is recommended. To finish, wash with soap and warm water. The use of solvents on the skin to remove resins etc must be avoided.

Washing should be part of routine practice:

- before eating or drinking
- before smoking & vaping
- before using the lavatory
- after finishing work

6. The inhalation of sanding dust should be avoided and if it settles on the skin then it should be washed off. After more extensive sanding operations a shower/bath and hair wash is advised.

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.

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## CONTACT INFORMATION

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

## 24-HOUR CHEMICAL EMERGENCY NUMBER

For advice on chemical emergencies, spillages, fires or exposures:

|          |                 |
|----------|-----------------|
| Europe   | +44 1273 289451 |
| Americas | +1 646 844 7309 |
| APAC     | +65 3158 1412   |

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