

Spabond 370

Epoxy Adhesive System

- **Simple 1:1 mix ratio by weight and volume**
- **Excellent Health and Safety**
- **High tolerance to off ratio mixing**
- **Excellent application characteristics**
- **Highly sag resistant - to 15mm on a vertical surface**
- **Tolerant of very high humidity**

Introduction

Spabond 370 teak deck adhesive has been formulated to give the optimum mechanical and working properties for bonding teak decking to a composite hull. Designed specifically for this purpose, it is the ideal adhesive for bonding down teak decks.

In use, Spabond 370 has a tolerant 1:1 mix ratio and a thixotropic, gel type consistency. This makes Spabond 370 very easy to measure, mix and apply.

Spabond 370 is non-corrosive, solvent free and cures at room temperature.

When cured, Spabond 370 is tough, highly adhesive and very strong and generates green strength rapidly (does not require post curing).

Instructions for Use

Spabond 370 resin is mixed with Spabond 370 hardener in the following ratio:

Spabond 370 resin	Spabond 370 hardener
100	: 100 (by weight)
1	: 1 (by volume)

The two components must be mixed thoroughly. If mixing by hand particular attention should be paid to the sides and bottom of the mixing vessel. Solvent free epoxy systems have a limited pot-life so do not mix more than can be used within 15 minutes at 18-20°C. Larger volumes and higher ambient temperature will reduce this available mixing time while lower ambient temperatures and smaller volumes will increase it. Pouring the mixed system into a shallow tray of large area will help dissipate the heat of the chemical resin/hardener reaction and increase working time.

Curing Schedule

Application

The system is designed for application at temperatures between 10 and 30°C. Ensure that surfaces to be bonded are clean, dry, grease-free and free of loose particles and dust. Follow the appropriate procedures of surface preparation prior to bonding with epoxy adhesives.

Curing

The system is designed to cure at ambient temperatures. Full cure can be achieved by a cure cycle of 28 days at 15-25°C. Exact times for any particular set of conditions have not been determined and users should satisfy themselves that adequate properties for the system are obtained for the particular combination of cure temperature and elapsed time.

Properties

Component Properties		
	Spabond 370 Resin	Spabond 370 Hardener
Appearance - Colour	Opaque White	Opaque Brown
Appearance - Form	thixotropic paste	thixotropic paste
Viscosity at 25°C (Poise)	220-260	800-850
Density (gm/cc)	1.17	1.17

Mixed Resin & Hardener Properties	
Appearance	opaque paste with grease-like consistency
Viscosity at 25°C (Poise)	230-270
Density at 21°C (gm/cc)	1.17
Working time in thin film at 21°C	5 hours - almost tack free
Gel time (150g, in water, 25°C)	53 minutes
Gel time (100g, in air, 20°C)	47 minutes
Sag resistance at 20°C	15mm
Working Time at 15mm thickness @ 21°C	90 minutes

Mechanical Properties	
Lap shear (MPa)	24-28
Cleavage (kN)	7-9
Cleavage on vinylester laminate (kN)	4.5 (note: laminate fails)
3-point flexural modulus, cast resin (GPa)	1.85

Note: Cured for 24 hours at 20°C plus 16 hours at 50°C

Properties (cont'd)

Thermal Properties	
Tg ₁ by DMTA (24hr / 20°C + 16hr / 50°C)	55°C
Peak tan delta by DMTA (24hr / 20°C + 16hr / 50°C)	78°C
Tg ₁ by DMTA (7 days at 20°C)	45°C
Peak tan delta by DMTA (7 days at 20°C)	58°C

Health and Safety

The following points must be considered:

1. Skin contact must be avoided by wearing protective gloves. SP-High Modulus 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. Overalls or other 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
- 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.

SP-High Modulus produces a separate full Material Safety Data Sheet for all hazardous products. Please ensure that you have the correct MSDS to hand for the materials you are using before commencing work. A more detailed guide for the safe use of SP resin systems is also available from SP-High Modulus, and can be found at www.gurit.com

Applicable Risk & Safety Phrases

Resin

R 36/38, 43, 51/53
S 24, 26, 28, 37/39, 57, 60

Standard Hardener

R 36/38, 43, 52/53
S 24, 26, 28, 37/39, 60



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 of two years for both the resin and hardener. Storage should be in a warm dry place out of direct sunlight and protected from frost. The temperature should be between 10 and 25°C. Containers should be firmly closed. Hardeners, in particular, will suffer serious degradation if left exposed to air.

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