

High Performance Bonding, Sealing & Preparation Products

High performance bonding products



INDASOL UHB Overview and Usage

Foamed Acrylic technology has been around for over 20 years and was originally developed for use in applications where an Ultra High Bond (UHB) was required. These applications varied from MOD, Marine, Aerospace, Automotive and General Manufacturing. Once established as a viable long term bonding solution, UHB products have been used in many different types of Industrial bonding applications as successful replacements to methods such as rivets, welds, screws, sealant adhesives and other messy time consuming adhesive products.

The Indasol UHB pure foamed acrylic bonding system is ideally suited to bonding difficult and dissimilar substrates and surfaces, including metals, glass, ceramics, many plastics and even painted, lacquered or powder coated finishes such as stiffening bars on the reverse of sign systems and cabinets where a strong long term bond is required.

The foamed acrylic construction, provides excellent conformability and is therefore ideal for rough, uneven and structured surfaces. In addition the foam offers excellent sealing dampening and vibration absorption capabilities, ensuring that bonded joints remain permanently secure, even in critical and exacting applications. Also, at this thickness, differing tensions and thermal expansions between the substrates are accommodated and absorbed by the acrylic foam mass. Some of the products will even allow movement of parts under stoving cycles above 250°C.

Within the range we have High Temperature products, Cold Stick products, Flame Retardant products and Automotive Approved products. Available in a range of thicknesses, widths and colours, our UHB products offer an all round clean and efficient bonding solution for most applications.

It is advised with all UHB materials that the application guide is followed in all applications.

INDASOL UHB tapes are visco-elastic by nature, their strength and rigidity is a function of the rate at which they are stressed. This means that they tend to react stronger and with more resistance under relatively faster rates of stress load (dynamic stress forces) and tend to demonstrate greater creep tendencies with static loads over longer periods of time. As a general rule, and we cannot be specific for every substrate, a 6,000sqmm area of tape (eg 80mm x 75mm), when applied correctly and allowed to attain ultimate bond strength, should be used to support each Kg of weight without excessive creep.

Under shorter term static shear and dynamic shear forces, we have demonstrated that a 625sqmm area of tape (eg 25mm x 25mm), properly applied and at ultimate bond strength, will hold a 1 Kg weight. Because of the points afore mentioned, however, regarding long term static loads and their effect on creep, we would always suggest building in safety margins to accommodate and allow for any detrimental movement over time. It is important to recognise the forces that will be acting upon the tape in service. For shear applications, always try, wherever possible, to apply the tape in the 'shear direction' ie. The strips should be applied with the length vertically so as to resist the shear force or tendency to creep. The values presented in this document have been determined by standard test methods and are average values that should not be used for specification purposes. Our recommendations regarding the use of our products are based on tests considered by Industrial Adhesive Solutions to be reliable, but the customer must conduct his own tests to determine the suitability of the product to the individual application and requirement. Industrial Adhesive Solutions do not accept responsibility or liability, directly or consequentially, for loss or damage caused as a result of our recommendations. Use appropriate cleaning and priming products where advised such as IPA, SP-450 and PR-100.

For assistance with any technical questions or for information on the other products INDASOL offer, please contact us on:

Tel: 0121 556 9900 Fax: 0121 556 9034 Email: enquiry@indasol.co.uk Web: www.indasol.co.uk

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Application Guide for using UHB Tapes

As with all Tape products, please ensure the surfaces to be bonded are Clean, Dry and Dust Free

1. In some cases it may be advisable to abrade the surface slightly using a nylon abrasive pad. This may not be the case in all applications, so please consult your INDASOL representative for technical details.
2. Surfaces should be either cleaned with IPA then primed with PR100, or cleaned and primed in one using INDASOL SP450.
Cleaning – This is available as either a liquid, pre impregnated sachets or pre impregnated wipes. These are only a surface cleaner.
Priming – Using INDASOL PR100 primer can also be used where IPA has been used to clean initially. This is an optional process, however this does improve initial grab and bond performance.
Cleaning and Priming in one – Use INDASOL SP450
3. Once the Surface has dried (15-20 sec), apply the INDASOL UHB Tape to one surface. Use a rubber roller to apply an initial downward pressure to ensure the UHB is well bonded to the first surface.
4. Large surface areas where either a high amount of weight or tension may be present, vertical and horizontal strips of UHB should be used to increase bond strength. Please see reverse for calculation guide.
5. Remove the backing liner and bond the second substrate. As this type of tape responds to pressure, ensure as much pressure as possible is applied to give the best bond. Use a roller where possible.
6. Handling strength will be gained immediately and full strength will be gained over a period of 24 to 72 hours. For a very high initial grab, use INDASOL PR-100.

For all of the above – Apply to a lint free cloth and wipe the first surface in one direction. Apply a second amount to a fresh face of the cloth and repeat. Do this again on the second surface.



Clean/Prime



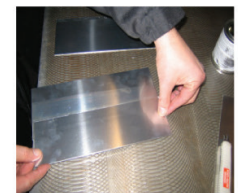
Apply UHB



Roller Pressure



Remove Liner



Bond Together

Unless stated otherwise all values given are average. All of the tapes in our range should be thoroughly tested on the substrates in the particular application they are intended for. The customer has to decide on the tapes suitability for the intended application.

If you have any questions regarding the application or specification of our UHB Tapes, please feel free to contact us as follows:

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