



INNOVASOLUTIONS

NOVABOND HIGH STRENGTH BONDING TAPE

Surface Preparation & Application Guide

SURFACE PREPARATION

To obtain the best results, surfaces must be clean, dry and free from oil, grease and any other contaminants that will be detrimental to accepting adhesives.

Where aesthetics allow, abrading the surface can increase surface area and enhance bond strength by up to 30%. Subsequent cleaning with a non-residual cleaning solvent such as Novabond Surface Cleaner will further assist the adhesion of the tape to the substrate surface. Ensure that the Solvent's use is in accordance with manufacturers recommended guidelines which are available from Innova Solutions.

For increased bond strength, the surface can then be treated with NovaBond Surface Primer which acts by polarising and increasing the surface energy of the substrate at the bonding interface to more readily accept adhesives. It is particularly useful in bonding metal signage which is subjected to severe external environments such as road traffic signs or signage prior to high temperature powder coating or stove enamelling. NovaBond Surface Primer enhances performance in-situ at both extremes of temperature. The primer will also enhance the bonding ability of galvanised steel, powder coated and epoxy coated metals and low surface energy plastics. It is important to use the NovaBond Surface Primer sparingly – it really is a case of less is more!

BOND STRENGTH

Bond strength is dependent upon the degree of adhesive to surface contact developed. Firm application pressure develops better adhesive contact and thus bond strength is improved. After application, bond strength will increase as the adhesive flows into the surface. 60% strength will be achieved within 20 minutes, 90% after 24 hours and 100% after 72 hours. Ultimate bond strength can be achieved sooner by exposing bond to higher temperatures (e.g. 70°C for 1 hour).

THICKNESS

Achieving the optimum thickness is best done by opting for the thinnest possible product that will give 100% surface contact between the two substrates and the adhesive surface. This will give greater shear, peel and tensile strength. Examine the substrate surface structure for irregularities and consider the amount of flexing that the sign / panel will be prone to i.e. the greater the dimensions, the more flexing will occur. This will also be increased when bonding dissimilar substrates that expand and contract at different rates. Choose a thicker product to accommodate this and the greater flexing in service.

APPLICATION STEPS

1. Where possible abrade the surface to provide a 'key'.
2. Clean surface with NovaBond Surface Cleaner.
3. If necessary, prime surface with NovaBond Surface Primer.
4. Apply NovaBond with the use of a NovaBond roller applying firm pressure.
5. Remove liner, apply second substrate and again apply firm pressure to the bond with the NovaBond roller.

Application Temperature: Ideal application range is 19°C to 25°C

Minimum Temperature: 10°C – Try to avoid applying to surfaces below this temperature as adhesive becomes firmer and condensation will form on substrates. NovaBond SignFix Plastic & Crystal can be applied at lower temperatures but condensation must be removed immediately prior to bonding

Surfaces Requiring Sealing: Most porous surfaces e.g. concrete, stone, screed and wood, will require sealing to unify the surface integrity. Some materials e.g. copper, brass, galvanised steel and plasticized vinyl may require priming to prevent interaction between adhesive and substrate. Prime glass with NovaBond Silane Primer.

Thorough evaluations are strongly recommended where substrates are questionable or surface area could be limited. This information represents average values and does not constitute a guarantee to the final performance. Customer must satisfy themselves as to the suitability of product for purpose.

For any other advice or on-site consultation, please contact us via our details below:-

"Making life easier"

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