N-Bond UV-Primer

Ultra-thin molecular primer for UV ink printing on glass, ceramic, acrylic and some metals.

PRODUCT DESCRIPTION

N-Bond-UV-Primer is an innovative, high performance, bonding primer using the latest technologies to enable UV inkjet inks to obtain superior adhesion on difficult-to-adhere surfaces, such as glass, ceramic tiles, Acrylic and certain metals. **On other substrates a trial and adhesion test is recommended.**
It forms and creates a molecular bond between the organic ink, and the inorganic substrate.
As a primer, it is applied to the substrate before the print process. In this case, **N-Bond-UV-Primer** is in the optimum position (in the interphase region), where it can be most effective as an adhesion promoter.
With **N-Bond-UV-Primer**, a poorly adhering ink, can be converted to a material that often will maintain adhesion even if subjected to severe environmental conditions.

N-Bond-UV-Primer is a single component, ready to use product. It contains a fast and residue free evaporating solvent. The technology in N-Bond allows organic paints, coatings, tapes and more to bond to any glass or ceramic surface with permanent properties.

N-Bond also improves the wettability of the substrate with the UV ink.
Using the primer eliminates damaging and peeling paint . The primer also ensures a durable moisture and water resistance paint layer. The Nano – scale layer is completely invisible.

RECOMMENDED FOR

N-Bond-UV-Primer can be used for the UV printing of glass and ceramic.

- Glass ,
- Ceramic
- Acrylic
- Certain metals (test first)
- Composites (test first)

Trials are recommended.

FEATURES & BENEFITS

- **Clear and dries completely invisible**
- **Nano-scale thin.**
- **Single component**
- **Ultra low volume required**
- **Does not smear**
- **Good abrasion resistance**
- **Excellent bonding function**
- **Economical, highest coverage on the market**
- **Fast to apply with simple methods.**
- **Can be printed on fast**
- **Improve thermal stability and durability of prints.**

SPECIFICATIONS

Supply form	Liquid
Colour	Clear
Density	Approx. 0.80
Solvents	Isopropanol –Ethyl Alcohol
Flashpoint	21°C
Storage temperature	Not below 4°C /39°F
Application temperature	4 to 35 °C / 39 to 86°F

SURFACE PREPARATION

Remove any excess dirt or dust with a dry cloth.
Glass surfaces should be cleaned first with Cl 50 , or a max. 50/50 isopropyl alcohol and demineralized water mixture. Higher water content is actually preferred. Wipe the surface dry with a suitable paper cloth. (Lint free)
If you use standard window cleaner first, always use the IPA and water mix after, to remove and neutralise any chemicals left from the cleaner solution.

APPLICATION

There are various application methods for the primer, like spray and wipe and wet wipe sachets for smaller areas.
Once the glass or ceramic is clean and dry, apply **N-Bond-UV-Primer** evenly with a lint free non-woven cloth in circular motions. Apply with circular overlapping motions. Wipe a very thin layer of the primer solution on to the glass surface with the cloth, and polish off with the application cloth. Alternatively you can use a spray and wipe method, and apply the product with a trigger spray and a non-woven lint free cloth. Make sure all area glass is treated.

N-Bond has to be applied as thin as possible.
Not as a wet film.
Only a very thin layer (monolayer) of the primer solution is required and gives the best and most consistent results.
If there is excess product visible after the drying, polish it off with a soft lint free cotton cloth. This clouding is normal , and can be easy removed with a dry cloth , after 1 – 2 minutes .
Once the whole surface of the substrate has been primed, allow a minimum 10 minutes to cure prior the printing. If the glass is tempered or on glazed ceramic a longer waiting time may be required.
The chemical nature of **N-Bond** is such that the primer can be applied max. 24 hours prior to the printing. However it is recommended to print early as possible to avoid any contamination and settling on the prepared ready to print item.
The chemical bond requires some water molecules either out of the substrate itself, or the surrounding air. If a test run shows low adhesion, extent the curing time.
When printed on untested materials always check the adhesion performance of **N-Bond-UV-Primer** onto the selected media before committing to a print run.

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The glass should be completely clear with no primer residue visible after the application and prior the printing N-Bond-Primer is clear and does not cloud or discolour glass. If clouding occurs, excess product has been applied. In that case reduce the amount of primer.
Excess product should be removed prior the printing, with a dry and clean, lint-free cloth.

Clouding can sometimes reappear and the glass should be checked prior the printing. This can easy be done within the curing period. Access material can also be removed with a slow running polishing machine and a soft lamb wool pad. This should only be used by experienced users.

CURING

Dries within10 minutes under conditions (20°C/68°F, 50% relative humidity). If a test run shows low adhesion, extent the curing time.
Application temperature: + 5 °C to +35°C/41 to 86°F.
Avoid applying on extremely hot surfaces. This would cause fast evaporation and access product and clouding.
Depending on the substrate, temperature, printer system and ink composition, the chemical bond might take up to 24 hours to complete.

CONSUMPTION

Consumption app. 2.5 – 5 ml/ m2 depending on the substrate, surface structure and the application temperature. Coverage rates are a guideline only and can vary. A coverage rate of up 300 , even 400 m2 / litre can be achieved on glass and ceramic. On metal the consumptions depends on the surface finish.

STORAGE

N-Bond-UV-Primer can be stored in tightly original sealed containers for 36 months from date of delivery. Do not dilute or mix with other substances.
It is important to reseal containers tightly after use. If the product is delivered in sachets, store in a cool, dry place and protect from heat and direct sunlight.

PACKAGING

Wet wipe sachets for up to 2 m2 each,
250 ml , 1 litre , 20 litre drums

PRECAUTIONS

READ ALL SAFETY DIRECTIONS AND WARNINGS ON PACKAGING BEFORE USE. REFER TO MATERIAL SAFETY DATA SHEET FOR HANDLING PROCEDURES.

Apply in well-ventilated area. The product is low odour but is a flammable liquid and vapour. Keep away from sources of ignition.
Adequate protective personal equipment should be used.
Please refer to the SDS for further precautions and safe handling information for this product.

Technical information and services are freely available from the Web site www.nanovations.com.au

Sydney Office:
Nanovations Pty Ltd
Ph. +61 2 9975 5602
Email info@nanovations.com.au
Web site www.nanovations.com.au