



Technical Data Sheet U-Bond Ultra 2K 1&5 min.
Ver. 5.0 March 2021

U-Bond Ultra 2K 1&5 min.

Plastic repair two-parts polyurethane structural adhesive

DESCRIPTION

Plastic repair two-components polyurethane structural adhesive specially designed for bonding and gap filling in car body repair. Ideal for external parts like bumpers and for treatment of scratches, holes and unions. Available 1' or 5' pot life version. May be spot welded-through while curing.

AREAS OF APPLICATION

U-Bond Ultra 2K is designed for semi rigid structural bonding of a wide range of materials as thermosetting and thermoplastic materials, steel, aluminum and glass. Typically used for repair tasks on paintable interior and exterior plastic parts, in particular for damages such as scratches or holes in bumpers, spoilers, aprons, etc. Suitable to repair and replace broken or missing mounting tabs, worn or stripped threads. Suitable to bond and repair mounting brackets on parts such as tail lamps, head lamps, mirrors and other automotive exterior and interior trim parts and fixing broken eyelets. Withstand a wide range of temperatures.

FEATURES

- Extremely quick full curing
- Does not sag or run
- Spot weldable before curing
- Excellent wide gap-filling capabilities
- May be sanded and overpainted
- Suitable for general purpose bonding
- Restores parts in rapid time
- Solvent free, odourless



TECHNICAL DATA mixed product

Appearance	Non-sag thixotropic paste	
Color	Grey	
Chemical nature	Polyurethane	
Density [g/cm ³] (NPT method 06) (23°C and 50% RH)	ca. 1,08	
Version	1 min.	5 min.
Pot life [min] (23°C and 50% RH)	ca. 1	ca. 5
Handling time [min] (23°C and 50% RH)	ca. 5	ca. 15
Full curing time [hours] (23°C and 50% RH)	ca. 4	ca. 8
Exothermic reaction temperature [°C]	ca. 80	ca. 50
Hardness Shore D (DIN 53505)	ca. 80	
Tensile strength [N/mm ²] (ISO 37 DIN 53504)	ca. 23	
Elongation at break [%] (ASTM D1002)	ca. 15	
Application temperature [°C]	From +10 to +30	
Temperature Resistance [°C]	From -30 to +100	

APPLICATION

Fit the cartridge into a specific manual operated gun. The surfaces to be treated should be perfectly clean, dry and free from dust and grease. It is advisable to carry out preliminary adhesion tests on the support. Blending should be made through the included static mixer composed by a minimum of 16 elements, a lower number of components does not allow a complete mixing. A higher number of components would increase speed of the chemical reaction of hardening. Static mixers are single use and disposable. Ensure the extruded material has a uniform color, unmixed product should not be used and thrown away. The optimal layer of adhesive that will guarantee the highest resistance for the joint should be at least 0.5 mm thick.

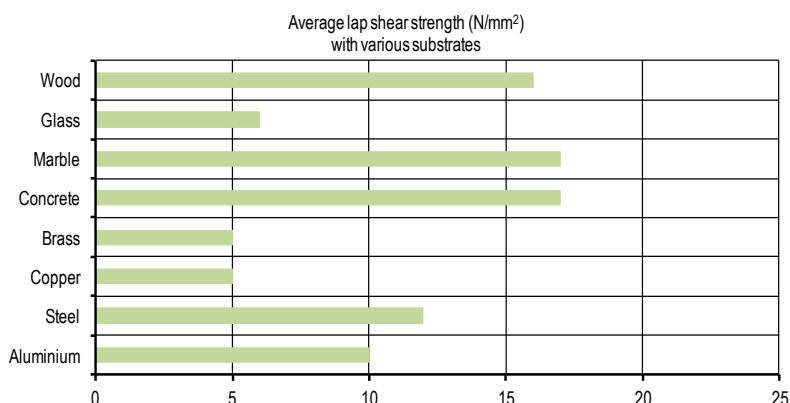
The components must be assembled before the adhesive starts curing and sealed with a steady pressure all over the gluing area. The strength and durability of bonded joints depend on proper pre-treatment of the surfaces to be bonded. Joint surfaces should be cleaned with a good degreasing agent in order to remove all traces of dust, dirt, oil and grease.

Pre-treatment of thermoplastics materials such as PVC, polycarbonate, polypropylene, PMMA, etc., can be made using a mixture of light ethers or with isopropanol. Use of strong solvents is not recommended due to the risk of damage to the plastic surface. Pre-treatment of other surfaces can be made using acetone or trichloroethylene. Petrol or other solvents should never be used. Where possible, carry out a mechanically abrasion to remove paint from the surfaces (where necessary) and to increase strength and resistance of the adhesion. Let dry the pre-treated area before applying the adhesive.

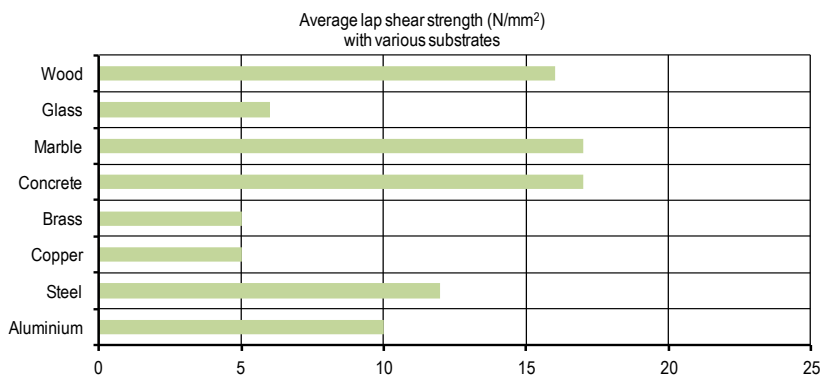
The speed of the hardening reaction is mainly influenced by two factors, the application temperature and the application thickness. Being the reaction exothermic, the speed decreases as the thickness and temperature application increase. Even if in smaller measure, the substrate influences the speed of reaction. Materials with a high coefficient of thermal conductivity will tend to slow down the reaction.

TECHNICAL CHARACTERISTICS OF CURED PRODUCT

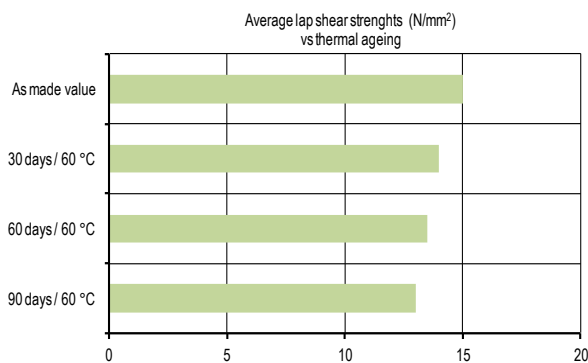
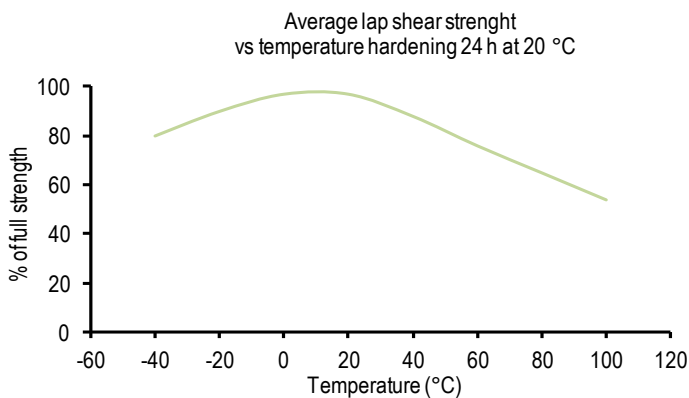
Lap-shear properties has been measured through standard samples test by using different substrates. Dimension of the samples where 100 x 20 x 20 mm with overlapping area of 20 x 20 mm. The values obtained with standard methods are exclusively provided as technical information and not as product specification. In any case it will be up to the user to test the product for a specific application and then give his final approval.



The tests have been conducted at 20°C on lap-shear joints, which have been hardened for 48 hours at 20°C. Pre-treatment has been made by sanding and degreasing with acetone.



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CLEANING OF EQUIPMENT AND PERSONAL PROTECTIVE MEASURES

Clean the tools used with acetone or solvent. When the adhesive has not yet hardened, it can be removed using paper or a cloth. Once hardened, the product can only be removed mechanically. Avoid skin contact by using latex, rubber or polyethylene gloves. If it comes in contact with the skin, remove immediately and wash with soap and water.

PACKAGING

Side-by-side cartridge 50ml – 12 pieces per box

STORAGE AND SHELF LIFE

U-Bond Ultra 2K can be stored for 12 months in its original packaging (unopened container) between 10°C and 25°C in a cool, dry place. The storage temperature should not exceed 25°C for extended periods of time. Keep away from wet areas, direct sunlight and heat sources.

GENERAL INFORMATION

The information contained in this technical data sheet is to the best of our knowledge correct, being based on our knowledge and experience to date and cannot be used as a guarantee, due to the various different materials present on the market and the fact that the application conditions are not under our direct control and supervision. NPT srl, however, guarantees constant product quality. NPT srl, has the right to modify or up-date this technical data sheet according to requirements. Customers are kindly requested to verify that they are in possession of the latest version.

ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET BEFORE USING THE PRODUCT