

# Meta-Bond

## Two-component methacrylate thixotropic adhesive for structural bonding

### DESCRIPTION

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Meta-Bond is a two-component thixotropic structural adhesive based on methacrylate, specially designed for repairs and structural assemblies between even heterogeneous materials such as thermosetting polymers, thermoplastics, metals, ceramics, carbon fiber, gel coats, fiberglass, natural materials and painted surfaces. Meta-Bond polymerizes quickly at room temperature and guarantees excellent shear and tensile strength; after complete polymerization it will be possible to overpaint it.

### AREAS OF APPLICATION

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Meta-Bond is suitable for the assembly of multiple materials in the automotive, industrial, and nautical sectors. Thanks to its characteristics Meta-Bond allows you to glue, fix and repair parts of heavy vehicles, campers or cars such as tanks, bumpers, panels, brackets.

In the industrial sector it can be applied to fix metal or plastic brackets, pins, couplings in general, it can replace hot welding in difficult or easily deformable areas. In the nautical sector it can be applied for fixing or repairing cable glands, brackets, mounting plates and structural elements to be fixed to the hull on fibreglass.

### FEATURES

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- Fast polymerization
- Easy to apply
- Does not drip in vertical applications, fills cracks and irregularities
- Very wide range of memberships
- High mechanical resistance and dynamic stress
- Allows spot welding before curing
- It can be sanded and overpainted
- Good resistance to acids, bases and hydrocarbon solvents

**TECHNICAL DATA mixed product**

<b>Appearance</b>	Thixotropic paste
<b>Color</b>	Ivory
<b>Chemical nature</b>	Methacrylate
<b>Density</b> [g/cm <sup>3</sup> ] (NPT Method 06) (23°C and 50% RH)	ca. 1.00
<b>Viscosity</b> [Pa*s] (Brookfield 25°C)	ca. 100
<b>Pot life</b> [min.] (23°C and 50% RH)	ca. 6
<b>Handling time</b> [min] (23°C and 50% RH)	ca. 10
<b>Full curing time</b> [hours] (23°C and 50% RH)	ca. 24
<b>Exothermica reaction temperature</b> [°C]	ca. 100
<b>Durezza Shore D</b> (DIN 53505)	ca. 80
<b>Tensile strenght</b> [N/mm <sup>2</sup> ] (DIN 53283, steel/steel)	ca. 33
<b>Elastic modulus</b> [N/mm <sup>2</sup> ] (DIN 53283)	ca. 1500
<b>Elongation at break</b> [%] (DIN 53283)	ca. 5
<b>Lap shear strenght</b> [N/mm <sup>2</sup> ] (ASTM D1002)	ca. 23 Alu / Alu ca. 9 ABS / ABS ca. 24 St. steel / St. steel ca. 11 FRP / FRP ca. 14 Alu / ABS
<b>Application temperature</b> [°C]	From +10 to +30
<b>Temperature Resistance</b> [°C]	From -40 to +120

## APPLICATION

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The adhesion surfaces must be perfectly clean and dry. Use a good degreasing agent to remove all traces of dust, dirt, oil and grease. It may be necessary to treat the bonding surface according to the NPT application guidelines, possibly using a specific CLEANER or ACTIVATOR from the NPT range.

Insert the cartridge into the specific manual gun. Before assembling the mixing spout (static mixer), check that both components actually come out. After fitting the nozzle, discard the first 2cm of product, making sure that the extruded material has a uniform colour; unmixed product must not be used.

Mixing must be carried out using the included static mixer composed of a minimum of 16 elements, a lower number of components does not allow complete mixing. The components must be assembled before the adhesive begins to cure by applying constant pressure over the entire bonding area. The strength and durability of the bonding depends on the adequate pre-treatment of the surfaces to be bonded. Processing and finishing must be carried out within the pot life. Bonded items may require additional sealing or support during the curing phase.

Due to the large variety of materials and compositions, preliminary adhesion tests are recommended.

## CLEANING OF EQUIPMENT AND PERSONAL PROTECTIVE MEASURE

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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.

## IMBALLI

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Side-by-side cartridge 50 ml                      6 pieces per box

## VITA E CONSERVAZIONE DEL PRODOTTO

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Meta-Bond can be stored for 9 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.

## INFORMAZIONI GENERALI

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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