



Technical Data Sheet X-Bond
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X-Bond

Extreme bonding two-parts acrylate structural adhesive for polyolefins

DESCRIPTION

X-Bond is a two-component acrylate structural adhesive for polyolefins and low surface tension materials like PE, PP, HD LDPE, copolymers, PTFE, EPDM, ABS or PVC. It allows bonding with higher cohesive resistance and shear strength without need of specific surface preparation.

AREAS OF APPLICATION

X-Bond is typically used for bonding and repair tasks on the polyolefin family of plastics, used in almost every kind of industry including aerospace, electronics, OEM, medical devices, among so many others. X-Bond offers many advantages to promote adhesion of polyolefin substrates to other kinds of materials, such as metals, ceramics, composites and other kinds of plastics.

FEATURES

- Low surface tension materials bonding
- No specific surface preparation
- Fast curing
- High cohesive resistance, peeling and shear strength
- Quick full curing
- Does not sag or run
- Excellent wide-gap filling capabilities
- Restores parts in rapid time



TECHNICAL DATA mixed product

Appearance	Thixotropic paste
Color	White
Chemical nature	Acrylate
Pot life [min] (23°C and 50% RH)	ca. 5
Handling time [min] (23°C and 50% RH)	ca. 3
Full curing time [hours] (23°C and 50% RH)	ca. 3
Exothermic reaction temperature [°C]	ca. 80
Hardness Shore D (DIN 53505)	ca. 60
Tensile strength [N/mm ²] (ISO 37 DIN 53504)	ca. 20
Elongation at break [%] (ASTM D1002)	ca. 30
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. To achieve satisfactory results, it is recommended to perform mechanical abrasion on the surfaces to be bonded; thereafter cleaning with acetone can be done, permitting the solvent to evaporate for few seconds. 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.

Avoid mixing high quantities of resin and curing agent since the heat released by the chemical reaction could be dangerous and could cause loss of material. Higher temperatures will reduce handling time. It is advisable to use X-Bond at temperatures higher than 10°C.

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 25ml – 6 pieces per box

STORAGE AND SHELF LIFE

X-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.

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