

**TECHNICAL DATA SHEET**

TDS N°02 / 2015.01

**ACROBOND® A 120 A+B****GENERAL CHARACTERISTICS / MAIN USE :****2-part MMA adhesive, non-sag, fast setting, high toughness**

ACROBOND® A 120 is a structural, 2-part MMA-based adhesive, fast setting, non-sag, designed for bonding metallic parts on a wide range of rigid thermoplastics. This very high performance adhesive is suitable for bonding metals with especially good adhesion properties to stainless steel, coated or primed aluminium and steel, other metallic alloys, fibreglass reinforced plastics or composites (polyester, vinyl ester) and most current rigid thermoplastic materials such as MMA, ABS, PC, rigid PVC, excepted polyolefin-based compounds such as PE, PP, TPE, etc. We do recommend proceeding to initial trials on your specific materials. Adhesive is very easy to use with standard 50 ml or 400 ml tandem cartridges and motionless mixer. Main use is in composite manufacturing, transportation (motor vehicle industry, containers, BTR) and building but also in many various industrial bonding processes.






**TECHNICAL CHARACTERISTICS OF PRODUCT :**

<b>Chemical base / Colour</b>	Methylmethacrylate-based polymers / Part A: off white, part B: amber like, mixture: pale yellow.
<b>Consistency</b>	Viscous creamy, non sag, very easy to apply by extrusion through motionless mixer.
<b>Density</b>	~ 0,96 g/cm <sup>3</sup> for Part A, ~ 0,97 g/cm <sup>3</sup> for Part B, ~ 0,97 g/cm <sup>3</sup> for A+B mixture.
<b>Viscosity</b>	~ 70 Pa.s for Part A and B (Brookfield), mixture A+B: gel - non sag.
<b>Mixing ratio A:B</b>	<b>1:1 by volume</b> and by weight (non critical resin : hardener mixture).
<b>Working / Fixture time</b>	Pot-life ~ 4-6 min. at 20°C / ~12-15 minutes (slower and faster products are available on demand).
<b>Cured adhesive film properties (A+B)</b>	Hard and very tough, good ageing, humidity and weathering resistance. Tensile elongation ≤ 7% Lap-shear strength: up to 25 MPa (psi) on metals and up to 12 MPa (psi) on rigid thermoplastics. Operating temperature of cured bonding: -35°C to +100°C. Shore D hardness: ~ 75 after final curing.
<b>Shrinkage / Gap Fill</b>	< 5% average shrinkage / gap fill : up to 3 mm thickness

**PREPARATION AND PROCESSING :**

<b>Materials and Surfaces</b>	The surfaces to be bonded must be clean, dry and free of any dust, oil and grease. Store the materials and process in dry places and not below +15°C. First degrease metallic surfaces with Acrodis A and thermoplastics with Acrodis H. Some materials might be prepared for bonding, possibly sanded. A primer coat may also be applied in some special cases. Adhesion must be tested for compatibility by carrying out preliminary trials. Our technical department is available for any advice.
<b>Preparation</b>	Material can be used with either 2-part mixing and dosing units, or with 2-part tandem cartridges. Place motionless mixer on the tandem cartridge and start extrusion of both components through the suitable motionless mixer. We recommended not to use initial few ml of mixture for which mixing ratio may probably not yet be optimized. Check if colour of mixture is homogenous to ensure a perfect bonding. Mixture has imperatively to be used within the above mentioned pot-life.
<b>Bonding</b>	Apply required quantity of adhesive/hardener mixture regularly on the surfaces to be bonded. In almost all cases, only one side has to be coated (most compact material). Layer thickness should be close to 300 ± 100 µm. Do not apply in too thick layers / gap fill must be below 3 mm. Remove excessive mixture immediately, cured material can only be removed mechanically. Curing time is mainly dependant on temperature; high temperatures will shorten it, lower ones do lengthen it.
<b>Joining / Pressing</b>	Immediately after extrusion or within the open-time, both materials have to be joined together. Press just to maintain contact (or vacuum-press ≤ 0,5 kg/cm <sup>2</sup> ) during the curing-time which is corresponding to approximately ≥ 4 times the pot-life. The bond can be exposed to light strength after initial curing-time. Terminal strength is reached after approximately 24 hours.
<b>Cleaning</b>	Use best our solvent mixture Acrodis A-HC for cleaning tools with uncured adhesive.

**RECOMMENDATIONS / STORAGE / SAFETY :**

<b>Storage</b>	≤ 9 months (≥ +5°C to +20°C) in a cool and dry place, tightly closed original packaging; protect from frost.
<b>Packaging Transport</b> 	Tandem cartridges with 2x25 ml and 2x200 ml (A+B), cardboards with 12 units. 19 kg pails A and B. ADR Classification: 1133, ADHESIVES, Class 3, Packing group III
<b>Handling precaution</b>	Before first using, read carefully Material Safety Data Sheet (available on request). Pictograms indicating the obligation of wearing personal protective equipment: 
<b>Labelling CLP-regulation</b> Hazard Pictograms / Signal word    GHS02 GHS05 GHS07 Danger	Hazard statements: Part A: Highly flammable liquid and vapour. Causes severe skin burns and eye damage. May cause respiratory irritation. May cause an allergic skin reaction. Harmful to aquatic life with long lasting effects. Part B: Highly flammable liquid and vapour. Causes skin irritation. May cause respiratory irritation. May cause an allergic skin reaction. Toxic to aquatic life with long lasting effects. Take the regular precautions for handling and processing chemical products. General information: Assure sufficient ventilation during processing. Avoid direct skin contact. Wear protective gloves and glasses. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. For professional / industrial use only.
<b>General Information</b>	The foregoing information represents values obtained in our laboratory and has been supplied in good faith, it shall not be construed to be legally binding, in particular, it shall not exempt the purchaser from taking responsibility for testing the product supplied so as to determine its suitability for the intended application. Given the high number of materials appearing on the market and the different methods of use, which are beyond our influence and control, we cannot accept any responsibility for the results of your work. Warranty is made exclusively for the constantly high quality of our products. Please note our terms of sales, delivery & payment.