

CARACTERISTIQUES GÉNÉRALES / UTILISATION :

ACROBOND® PU 253 is a high performance, 2-component polyurethane adhesive designed for bonding metals with especially good adhesive properties to coated aluminium and steel, wood, fibre reinforced Polyester and most rigid foams. For manufacturing of aluminium honeycomb panels, insulating panels, laminated units, glass foam and mineral fibres, non-wovens and some rigid thermoplastics such as PS, PC, ABS, rigid PVC for which a special primer may be required. Adhesive has been tested by independent French LNE laboratories; ACROBOND® PU 253 + ACROCURE ISO 400 does satisfy to IMO A.653 (16) regulation (certificate N° 30507/A0 EC from Bureau Veritas Division Marine). Main use is in transportation, building, composite manufacturing and marine but also in various industrial assembly processes.

TECHNICAL CHARACTERISTICS OF PRODUCT :

Chemical base	PUR, fillers and various additives; to be used in combination with Acrocure ISO 400 or ISO 50.
Colour	Beige, special colours possible only on special request.
Consistency	Liquid, easy to apply by brush, spatula, roll-coater, air spray system or extrusion.
Density	~1,65 g/cm ³ for resin ~1,23 g/cm ³ for hardener ~1,58 g/cm ³ for A+B mixture
Mixing ratio A:B	5:1 by weight and 3,7:1 by volume (resin:hardener) with Acrocure ISO 400 or ISO 50
Viscosity Brookfield RVT	~25000 mPa.s for resin, ~8000 mPa.s for A+B mixture with Acrocure ISO 400
Pot-life for 100g mixture	≤ 60 minutes with Acrocure ISO 400 and ≤ 70 minutes with Acrocure ISO 50
Cured adhesive film	Hard, very good ageing properties. Shear strength on treated aluminium : ~17 MPa
Properties (with ISO 400)	Perpendicular tensile strength (EN 2243-4) alu / honeycomb 9 mm mesh : ~2,8 MPa.
Shore Hardness	~83 Shore D with Acrocure ISO 400 and ~75 Shore D with ISO 50 after 7 days curing time

PREPARATION AND PROCESSING :

Materials and Surfaces	The surfaces to be bonded must be clean, dry and free of dust and grease. Store the materials and process in dry places and not below +15°C. Some metals must normally be prepared for bonding, possibly sanded. A primer coat may also be applied in some special cases. Our technical department is available for any further questions.
Preparation of adhesive	Add the recommended hardener to resin in the right ratio and stir / mix well until obtaining an homogenous mixture which has imperatively to be used within the pot-life. Make sure that even on the wall of the vessel, product is well mixed or fill it into another vessel and mix again for a short time.
Hardener	Acrocure ISO 400 basically or ISO 50. For other (more flexible) hardeners, please consult us.
Bonding	Apply ~350 g/m ² adhesive/hardener mixture regularly to the surfaces to be bonded, by roll-coater, spatula or spraying system. In almost all cases, only one side has to be coated (most compact material). Layer thickness depends on material consistency.
Joining	Immediately after coating or within the open-time, both materials have to be joined together. Take care not to introduce air while joining. For adhesive / hardener mixture which is coated immediately after stirring in a thin film (approx. 200-250µ = 350 g/m ²) the open-time is approximately twice the pot-life for a constant temperature.
Pressing	Press both materials together under vacuum-pressure (0,5 kg/cm ²) during the curing-time which is approximately ≥ 8 times the pot-life for a constant temperature. The adhesive will cure with very low shrinkage. The bond can be exposed to light strength after pressing-time. Terminal strength is reached after approx. 48 hours depending on the temperature. High temperatures shorten the curing time, lower ones do lengthen it. Please consult our technical department for more details.
Alternatives	Other products are available with different viscosity, thixotropy, pot-life and hardness.
Cleaning	Use best our solvent mixture Acrodis GR for cleaning tools with uncured adhesive.

RECOMMENDATIONS / STORAGE / SAFETY :

Storage	≤ 12 months (≥ +10°C and ≤ +25°C) in a dry place and in original, tightly closed packaging; protect against frost. Stir / remove before using.
Packaging / transport	Pails containing 5 or 30 kg net, drums containing 300 kg net, containers on request. ADR Classification: void / not restricted.
Handling precaution	Before first using read carefully Material Safety Data Sheet which is available on request.
Labelling CLP regulation Hazard Pictograms / Signal word void	The product is not classified according to the CLP regulation. Hazard statements part A / resin: void. See details on Material Safety Data Sheet and consult MSDS of corresponding part B / hardener. General information: Take the regular precautions for handling / processing chemical products and polyurethanes. Assure sufficient ventilation during processing. Avoid direct skin contact. Wear protective gloves and glasses. For professional and industrial use only.
General Information	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.