

Agomet® P 76 A/B

Two component epoxy adhesive with good thermal/environmental resistance

Properties Agomet P 76 A/B, a cold setting epoxy adhesive, consists of a light grey resin component with moderate viscosity and a blueish-green hardener with higher viscosity. The flash point is over 100 °C.

Bonds produced with Agomet P 76 A/B possess high peel and tensile shear strengths. Agomet P 76 A/B has good resistance to temperature and moisture. The adhesive is gap-filling.

Bondable Materials Metals, including non-ferrous metals; many rigid plastics, wood, and ceramics.

<i>Component B Resin</i>	<i>Component A (hardener)</i>	<i>Mixture B : A = 1:1</i>
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Viscosity	appr. 20 Pa.s	appr. 150 Pa.s	appr. 100 Pa.s
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Specific gravity	appr. 1.55	appr. 1.61	appr. 1.58
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Processing

Pre-treatment The surfaces to be joined must be free of all contaminants and, most important, grease and dustfree. A mechanical roughening is advisable.

Plastic materials which are difficult to bond, e. g. PE, PP, POM, must be subjected to a special pretreatment such as exposure to flame, pickling, or corona discharge before bonding (see also the German VDI guideline # 3821).

Mixing Ratio The resin (component B) and hardener (component A) are homogeneously mixed in the weight ratio of 1:1.

Potlife The processing time (potlife) of the mixture is about 2 - 3 hours, depending on the application temperature.

Bonding The adhesive mixture is applied smoothly to the surfaces to be bonded. Immediately after the parts have been fitted together, they must be clamped firmly under contact pressure. The final strength is reached after about 48 hours. By raising the setting temperature, the curing time can be shortened considerably: It takes about 6 hours at 50 °C, and only about 15 minutes at 120 °C.

Bonding Performance

Tensile Shear Strength	Aluminium AlCuMg2pl (Bondur F44) <i>according to DIN 53 283</i> <i>Test specimen: 100 x 25 x 1.6 mm, overlap: 12 mm</i>	approx. 19 N/mm ²
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Peel Strength	Aluminium F 13.3 <i>measured by the T peel test according to DIN 53 282</i> <i>Test specimen: 100 x 30 x 0.5 mm</i>	approx. 2.1 N/mm
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Chemical Resistance Agomet P 76 A/B has a good resistance to gasoline, Diesel fuels, fuel oil, lubricating oil and alkalis. Resistance to mineral acids is lower.

Thermal Stability The thermal stability of joints bonded with Agomet adhesives depends on the bonded materials themselves as well as on their pre-treatment. In general, the following applies:

Long-term durability of the bond is maintained between about -30 °C and approximately +80 °C. The strength decreases distinctly at temperatures exceeding 80 °C up to about 120 °C, and decreases very rapidly at even higher temperatures.

Brief exposure to temperatures of 180 - 200 °C without mechanical stress - e.g. during paint bake, in general hardly impair the bonded joints.

Advice

Storage Stability Resin and hardener can be stored for at least 1 year in their original, yet unopened containers. Storage conditions: cool and dry.

Before application, especially after an extended storage period, it is advisable to stir both resin and hardener thoroughly.

Handling Precautions

Caution

Our products are generally quite harmless to handle provided that certain precautions normally taken when handling chemicals are observed. The uncured materials must not, for instance, be allowed to come into contact with foodstuffs or food utensils, and measures should be taken to prevent the uncured materials from coming in contact with the skin, since people with particularly sensitive skin may be affected. The wearing of impervious rubber or plastic gloves will normally be necessary; likewise the use of eye protection. The skin should be thoroughly cleansed at the end of each working period by washing with soap and warm water. The use of solvents is to be avoided. Disposable paper - not cloth towels - should be used to dry the skin. Adequate ventilation of the working area is recommended. These precautions are described in greater detail in the Material Safety Data sheets for the individual products and should be referred to for fuller information.

All recommendations for the use of our products, whether given by us in writing, verbally, or to be implied from the results of tests carried out by us, are based on the current state of our knowledge. Notwithstanding any such recommendations the Buyer shall remain responsible for satisfying himself that the products as supplied by us are suitable for his intended process or purpose. Since we cannot control the application, use or processing of the products, we cannot accept responsibility therefore. The Buyer shall ensure that the intended use of the products will not infringe any third party's intellectual property rights. We warrant that our products are free from defects in accordance with and subject to our general conditions of supply.

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