

Advanced Materials**Agomet® F 121 AB****Structural Adhesives****Agomet® F 121 AB****Fast curing methacrylate adhesive for series production processes****Characteristics**

The reaction adhesive Agomet® F 121 AB bonds metals and plastics and cures at room temperature. Thanks to its very high curing rates, Agomet® F 121 AB is ideally suited for bonding operations where, e.g. in series production, a short potlife is required. For a methyl methacrylate-based adhesive, Agomet® F 121 AB features a very good thermal stability.

The adhesive has a potlife of 3 - 5 minutes. Just 6 - 8 minutes after bonding and curing at room temperature, the parts can be handled. The final strength is reached after about 2 hours.

Agomet® F 121 AB comes as a two part system and can be applied 1:1 with standard dosing/dispensing equipment. All equipment parts coming into direct contact with the adhesive must be made of aluminium or stainless steel.

Bondable materials

Metals such as steel, aluminium, copper and their alloys, ferrites.
Plastics such as ABS, polystyrene, rigid PVC, polycarbonate.

Viscosity (23 °C)

F 121 A: appr. 3,5 Pa.s
F 121 B: appr. 3,5 Pa.s

Specific Gravity

appr. 1.0

Processing**Surface preparation**

Even without a particular surface preparation, Agomet® F 121 AB develops high strength values. As with all bonds, however, the bonding strength can be optimised by additional surface pretreatment: the parts must be free of loose impurities such as dust, oxides, grease, mould release agents, or plasticizers. A simple surface wipe with a solvent such as ethyl acetate (for plastics: alcohol) is adequate. Normal residues of rolling or drawing oil are relatively compatible with Agomet® F 121 AB and can remain on the surfaces to be joined.

Amount to be applied

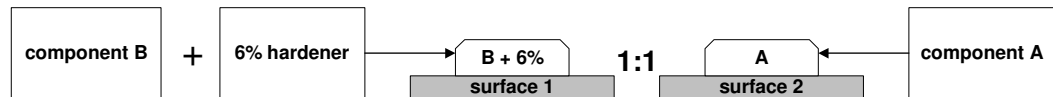
The optimal amount of adhesive to be applied is 150 - 250 g/m².

Mixing ratio

Add 4 to 10 % - preferably 6 % - hardener powder to component B and mix homogeneously. Then apply 1:1 together with the ready-to-use component A.

Bonding

Apply component A to one surface and place an equally thick layer of component B (hardener already mixed in) on the other surface. The coated parts can be put aside for up to 30 minutes. Then the two surfaces are mated and kept under contact pressure. Curing starts only after both surfaces to be bonded have been joined. This separate processing allows bonding operations practically independent of the adhesive's potlife.



Caution: Never mix hardener into Component A !

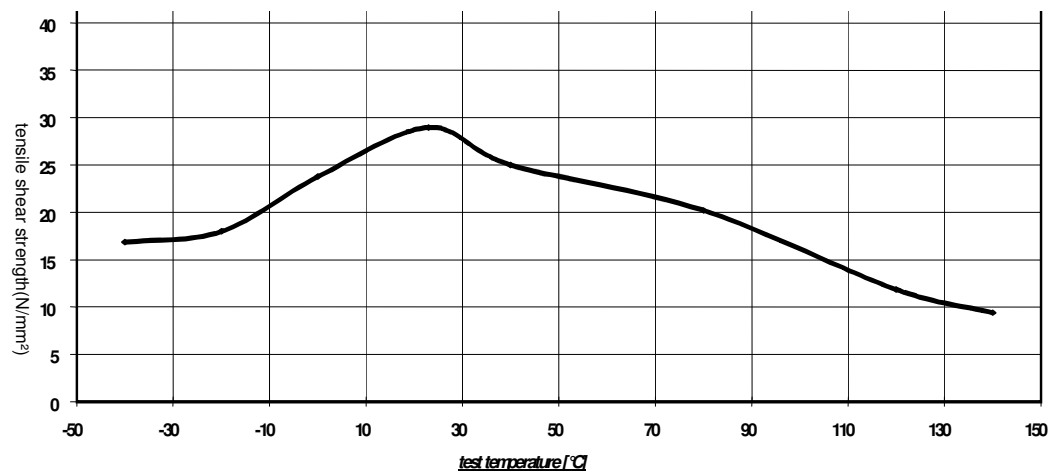
The adhesive can be applied with dosing/dispensing equipment, even by placing components A and B (incl. hardener) on top of each other on one of the surfaces to be joined. In this case, however, the parts must be mated immediately.

Bonding performance

Tensile	- Aluminium/Bondur F 44 (AlCuMg2pl)	N/mm ²	appr. 28
Shear Strength	- Brass	N/mm ²	appr. 23
	- Steel	N/mm ²	appr. 20
	- Rigid PVC		material rupture
	according to DIN 53 283		
	test specimen 100 x 25 x 1.6 mm; bonded area 3 cm ² ; pretreatment: degreased, roughened		

Peel Strength	- Aluminium (AlF 13.3)	N/mm	appr. 2
	measured in the T-Peel Test according to DIN 53 282,		
	test specimen: 130 x 30 x 0.5 mm; bonded area 3 cm ² ; pretreatment: roughened		

Dependence of tensile shear strength on test temperature



According to DIN 53 283; degreased and roughened: grain 100; test speed: 15 mm/min.

Advice

Shelf life Agomet® F121 A and B must be stored at 2-8°C in sealed containers. Hardener powder must be stored at 2-18°C. When stored at 23°C the life is a maximum of 6 months. The expiry date, following the above mentioned recommended storage conditions is indicated on the packaging.

After mixing hardener powder with component B, the shelf life of this component is reduced to 2 - 3 weeks.

**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.

**Huntsman Advanced Materials**

(Switzerland) GmbH
Klybeckstrasse 200
4057 Basel
Switzerland

Tel: +41 (0)61 299 11 11
Fax: +41 (0)61 299 11 12

www.huntsman.com/advanced_materials
Email: advanced_materials@huntsman.com

Huntsman Advanced Materials warrants only that its products meet the specifications agreed with the user. Specified data are analysed on a regular basis. Data which is described in this document as 'typical' or 'guideline' is not analysed on a regular basis and is given for information purposes only. Data values are not guaranteed or warranted unless if specifically mentioned.

The manufacture of materials is the subject of granted patents and patent applications; freedom to operate patented processes is not implied by this publication.

While all the information and recommendations in this publication are, to the best of Huntsman Advanced Material's knowledge, information and belief, accurate at the date of publication, **nothing herein is to be construed as a warranty, whether express or implied, including but without limitation, as to merchantability or fitness for a particular purpose. In all cases, it is the responsibility of the user to determine the applicability of such information and recommendations and the suitability of any product for its own particular purpose.**

The behaviour of the products referred to in this publication in manufacturing processes and their suitability in any given end-use environment are dependent upon various conditions such as chemical compatibility, temperature, and other variables, which are not known to Huntsman Advanced Materials. It is the responsibility of the user to evaluate the manufacturing circumstances and the final product under actual end-use requirements and to adequately advise and warn purchasers and users thereof.

Products may be toxic and require special precautions in handling. The user should obtain Safety Data Sheets from Huntsman Advanced Materials containing detailed information on toxicity, together with proper shipping, handling and storage procedures, and should comply with all applicable safety and environmental standards.

Hazards, toxicity and behaviour of the products may differ when used with other materials and are dependent on manufacturing circumstances or other processes. Such hazards, toxicity and behaviour should be determined by the user and made known to handlers, processors and end users.

Except where explicitly agreed otherwise, the sale of products referred to in this publication is subject to the general terms and conditions of sale of Huntsman Advanced Materials LLC or of its affiliated companies including without limitation, Huntsman Advanced Materials (Europe) BVBA, Huntsman Advanced Materials Americas Inc., Huntsman Advanced Materials (UAE) FZE, Huntsman Advanced Materials (Guangdong) Company Limited, and Huntsman Advanced Materials (Hong Kong) Ltd.

Huntsman Advanced Materials is an international business unit of Huntsman Corporation. Huntsman Advanced Materials trades through Huntsman affiliated companies in different countries including but not limited to Huntsman Advanced Materials LLC in the USA and Huntsman Advanced Materials (Europe) BVBA in Europe.

All trademarks mentioned are either property of or licensed to Huntsman Corporation or an affiliate thereof in one or more, but not all, countries.

Copyright © 2012 Huntsman Corporation or an affiliate thereof. All rights reserved