HUNTSMAN

Enriching lives through innovation

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.

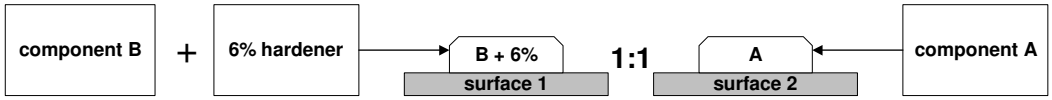
Bondable materials	Metals such as steel, aluminium, copper and their alloys, ferrites. Plastics such as ABS, polystyrene, rigid PVC, polycarbonate.
Viscosity (23 °C)	F 121 A: appr. 3,5 Pa.s F 121 B: appr. 3,5 Pa.s
Specific Gravity	appr. 1.0

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

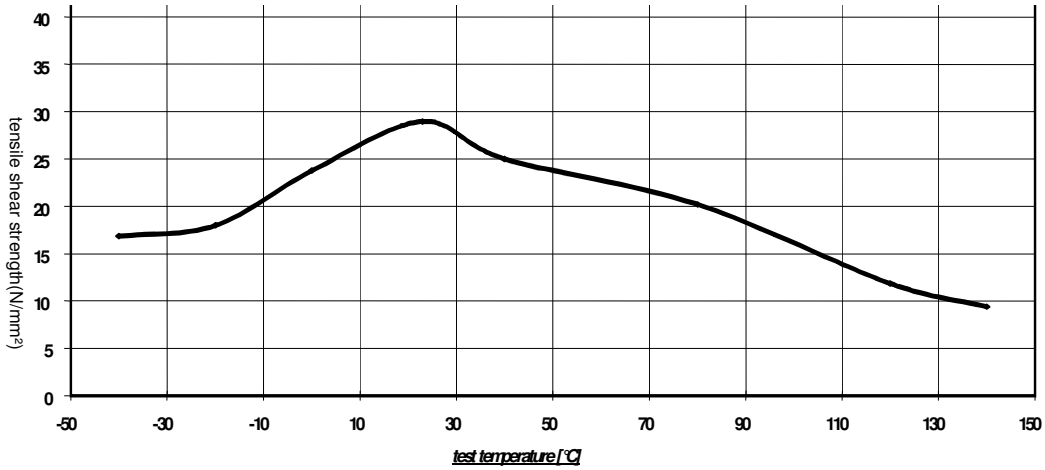
Tensile Shear Strength	- Aluminium/Bondur F 44 (AlCuMg2pl)	N/mm²	appr. 28
	- Brass	N/mm²	appr. 23
	- Steel	N/mm²	appr. 20
	- Rigid PVC	material rupture	

according to DIN 53 283
test specimen 100 x 25 x 1.6 mm; bonded area 3 cm²; 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 cm²; 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℃ in sealed containers. Hardener powder msut be stored at 2-18℃. When stored at 23℃ the life is a maximum of 6 months. The expiry date, following the above mentioned recommanded 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.

ISO 9001
DNV
REGISTERED

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