

Agomet® Hardeners

Hardeners for Agomet® Adhesives based on methacrylate or styrene

Characteristics Hardeners start a chemical reaction in the adhesive or resin the very moment they are added. Our hardener preparations' substances as well as their consistency are particularly formulated to be processed in various ways with our adhesives and resins. In the sense of the "Regulation on Hazardous Preparations", hardeners for methacrylate and styrene systems are considered as oxidising and must be kept away from sources of ignition.

<i>Type of hardener</i>	<i>Physical consistency</i>	<i>Amount added % of weight</i>	<i>Suitable applications</i>	<i>Forms supplied</i>
Hardener powder	powder	2 - 5*	For transparent applications and for low viscosity systems (preferably up to 25 Pa.s). No guaranty for sufficiently thorough mixture with high viscosity systems!	PE bags: 30 g, 150 g can: 1 kg
Hardener paste, white	paste	2 - 5*	For medium to high viscosity systems (preferably over 25 Pa.s).	tubes: 3 g, 7 g, 15 g, 28 g, 50 g, 100 g
Hardener paste, red	paste	2 - 5*	Same as above, red colouring for visible evidence of hardener.	tubes: 28 g
Hardener D	liquid	5 - 10	For hardener dosing with automated equipment.	can: 400 g container: 6 kg
Hardener K 100, red	paste	5 - 10	Cartridges and automated dosing equipment	container: 30 kg
Hardener lacquer 2	liquid		No-mix system with hardener lacquer is described in a separate product sheet.	

* **Caution:** When processing methacrylate adhesives with the "AB System", twice the amount of the above mentioned hardener quantity must be mixed into component B.

Processing The hardener is mixed into the adhesive or resin immediately before processing.

Mixing vessels Mixing vessels must be clean and kept away from reduction agents such as amines, acids, alkalis, heavy metal compounds (e.g. accelerators, drying agents, metallic soaps).

Quantities For the appropriate amount of hardener to be added to the adhesive or resin, please see our corresponding product data sheet. The above quantities serve only as guidelines.

Advice: Tubes with hardener paste must be homogenised (kneaded) before use.

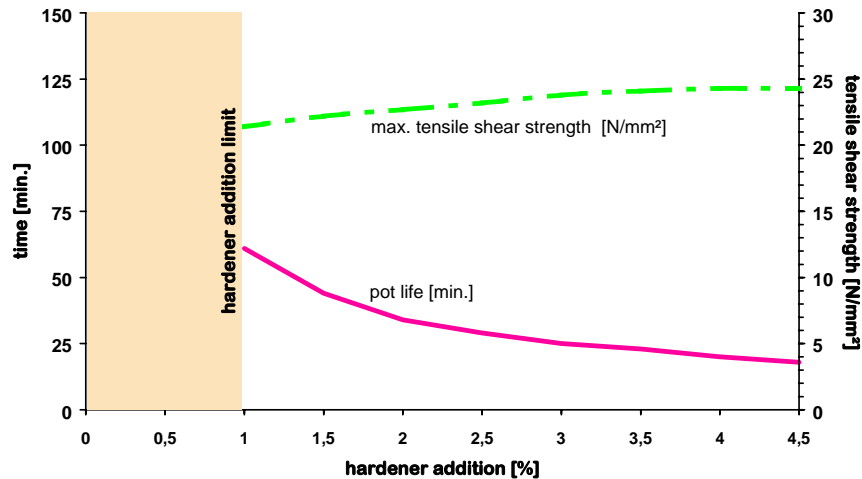
Processing time Processing of the adhesive or resin must begin immediately after the hardener has been mixed in. The actual processing time depends on the pot life of the particular adhesive or resin. At the end of its pot life, the mixture loses its flowability and can no longer be processed.

Detailed instructions on processing conditions are provided in our product data sheet for the particular adhesive or resin, along with additional information on surface preparation, quantities to be applied, strength values, etc.

Hardeners – Influencing factors

2/2

How the chemical reaction develops depends on the amount of hardener added. The quantities we recommend ensure a problem-free processing and optimum product properties, while making economical use of the raw material. A lower hardener quantity slows the reaction time, initially with only slight loss in performance. Lowering the minimum quantity considerably, however, will disturb the curing process, followed by unstable functional properties and possible failure of the end product. Also, the functional properties will be impaired by exceeding the recommended amounts of hardener. For example, the following graph shows the influence the amount of hardener added (in this case to the *Agomet® U* adhesive) has :



With rising ambient temperatures the pot life decreases. By adding other than the recommended amounts of hardener, the processing time can be influenced to a certain extent; however, this may also change the properties of the end product.

Advice

Storage Stability

Hardener paste and powder can be stored in their unopened, original containers for at least 24 months, all other hardeners for 12 months. Though their reactivity may decrease slightly during this time, normally this does not impair curing or functional properties. Storage conditions: well aerated place at +5 to +25 °C.

Advice

Hardener paste: Imprinted on the tube's seam is the filling date, not the expiry date or end of minimum shelf life.

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.

Huntsman Advanced Materials

Duxford, Cambridge
England
CB2 4QA
Tel: +44(0)1223 832121
Fax: +44(0)1223 493322
www.araldite.com

© Huntsman Advanced Materials (Switzerland) GmbH
® Agomet is a registered trademark of Huntsman LLC or an affiliate thereof in one or more, but not all, countries