



Designed to Take the Heat

Acrathin 1100 Adhesive

Acrathin 1100 Adhesive is a self-hardening ceramic adhesive that is mixed with water at the job site. The bonding agent and the hardener are contained in the adhesive.

Acrathin 1100 Adhesive can be fired immediately after drying, and is available for service temperatures of 1100°C (2012°F).

Acrathin 1100 Adhesive has the following characteristics:

- ▲ Excellent adherence to steel and ceramics
- ▲ Pot life of 30 minutes
- ▲ Resistant to concentrated sulfuric acid
- ▲ Minimum open porosity and low gas permeability

Acrathin 1100 Adhesive can be used to:

- ▲ Anchor ceramic fiber matting, modules and boards to steel, concrete, masonry, etc.
- ▲ Lay piping, boards and bricks in smokestack construction
- ▲ Make acid resistant wall linings
- ▲ Protect furnace casings, piping, etc., against corrosion when temperatures fall below the dew point

ACRATHIN 1100 ADHESIVE		
Service Temperature	°C (°F)	1100 (2012)
Chemical Analysis	% Al ₂ O ₃	40
	% SiO ₂	50
	% Fe ₂ O ₃	0.2 - 0.4
Chemical Bonding at	°C (°F)	Room Temperature
Ceramic Bonding from	°C (°F)	1000 (1832)
Wet Density	kg/m ³ (lb/ft ³)	1900 (119)
Dry Density	kg/m ³ (lb/ft ³)	1900 (119)
Compressive Strength	MPa (lb/in ²)	40 (5840)
Cold Bending Strength (MOR)	MPa (lb/in ²)	15 (2190)

- Product form:** Dry powder
- Packaging:** 5, 10, 20 kg plastic pails
(11, 22, 44 lb)
- Shelf life:** 1 year (dry and cool condition)
Correct storage can extend the shelf life up to a few years.



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ACRATHIN 1100 ADHESIVE INSTRUCTIONS FOR USE

ACRATHIN 1100 ADHESIVE is an adhesive mortar based on ceramic fillers and chemically bonding agents. It hardens while air drying.

1. Using **ACRATHIN 1100 ADHESIVE** :

First, pour the water into the mixing container. Add the appropriate amount of adhesive powder and stir to make a lump-free homogeneous mixture. For larger quantities, a compulsory mixer can be used. The mixture will be slightly moist and crumbly at first. After about five minutes, an adhesive mass will develop that is easy to work.

Mixing Proportions: Approximately 7 parts by weight **ACRATHIN 1100 ADHESIVE**
Approximately 1 part by weight water

The adhesive-water ratio may vary slightly depending on the circumstances. The amount of water added should be kept as small as possible in order to obtain a tighter and stronger bond. If not using entire container, mix only the amount of **ACRATHIN 1100 ADHESIVE** needed in a separate container.

2. The working time is approximately ½ hour at +20°C. Do not disturb the hardening process! Adhesive that has already been made up must not be made reusable by subsequently adding more water.

3. The hardening time is approximately 24 hours at +20°C. As a rule, as soon as the adhesive is completely hardened, the item can be put into use.

Do not process **ACRATHIN 1100 ADHESIVE** at temperatures below +5°C. Joints that have just been made should be protected from frost until completely hardened.

4. Do not allow a skin to form on the adhesive before the two parts to be joined are brought together.

5. The amount of adhesive used will depend on the absorption properties of the materials to be joined. Apply the adhesive as thin as possible. The normal amount is between 3 and 5 kg/m² (0.25 to 0.5 lb/ft²) of surface area. Larger amounts of adhesive will be necessary on expanded sheet metal.

6. The surface of the materials to be joined must be free of dust and grease.

7. After use, ensure that the containers of non-mixed **ACRATHIN 1100 ADHESIVE** are closed airtight.

APPLICATIONS

ACRATHIN 1100 ADHESIVE can be used to anchor ceramic fiber felt, mat or blanket onto rib mesh, lightweight refractory bricks, fire resistant bricks and ceramic fiber modules; and for joining ceramic fiber boards and moldings, ceramic fiber paper and cords.