

Epoxy Putty

Description

Sylmasta AB Original Epoxy Putty has multiple uses in repair, maintenance and manufacturing. The putty is ceramic-filled, making it harder wearing and stronger than other putties. It has a work time of up to two hours, allowing more of the putty to be mixed, shaped, formed and applied before curing begins. Once cured, it can be tapped, drilled, screwed, sawed, machined, ground, filed, or painted.

Suitable for interior or exterior use, AB Original bonds to metal, brick, concrete, wood, masonry, porcelain, ceramic, most plastics and other materials. It cures on wet surfaces and underwater, and is resistant to chemicals, hydrocarbons and temperature extremes. It contains no solvents or VOC's, is non-flammable, releases no noxious fumes and it won't shrink or pull away when setting. The unused portion stays fresh for future use when saved in its original packaging.

General Repair Applications

- Repairing damage and filling gaps in concrete, brick and metals
- Protecting parts against corrosion and chemical attack
- Levelling unstable machinery, sinks and basins
- Sealing cable glands and joints, insulating electrical components
- Carrying out underwater repairs to joints and tiles
- Making wet surface repairs to boats and other vessels
- High strength bonding between materials

Pipe Repair Applications

- Sealing large holes and cracks in pipework
- Repairing surface damage for improved pipeline integrity
- Encapsulation of leaking joints
- Use as a sacrificial layer in chemically aggressive environments
- Repairing cast iron gutters, down pipes and railings

Advantages

- Resin and hardener supplied separately for greater control over mixing
- Two hour cure time enables longer to work with the putty
- Can be machined
- Smooth finish, with good adhesion
- Can be worked without cracking or tearing
- Bonds to metal, wood, brick, most plastics and many other materials
- Available in White, Black or Grey

Directions for Use and Packaging

AB Original is supplied with the resin and hardener as separate components. Part A and Part B are mixed together in even quantities by volume or weight. The putty is kneaded until it is uniform in colour, after which it is applied whilst soft to the repair area.

Product Code

AB-*colour*-250g
AB-*colour*-500g
AB-*colour*-1kg
AB-*colour*-2.5kg

Pack Size

250g
500g
1kg
2.5kg

Product Code

AB-*colour*-5kg
AB-*colour*-10kg
AB-*colour*-20kg
AB-*colour*-50kg

Pack Size

5kg
10kg
20kg
50kg

Colour Key

WHITE = White
BLACK = Black
GREY = Grey

Technical Data

Working time	90-120 minutes at 20°C
Cure time (firm)	4 hours at 20°C
Cure time (hard)	10 hours at 20°C
Full cure	24 hours at 20°C
Application temperature	+5°C to +35°C <i>Cure speed will be quicker above 35°C and slower below 5°C</i>
Service temperature	
Continuous	-20°C to +130°C
Intermittent	-20°C to +300°C (dry)
Specific gravity	2.00
Shore D hardness	90
Tensile strength	24 MPa
Compressive strength	80 MPa
Lap shear strength (steel)	3.5 MPa
Dielectric strength	8 kV/mm = 25 kV/mil
<i>Typical properties: for information only; not for specification purposes.</i>	

Storage

AB Original should be stored out of direct sunlight in dry frost free conditions of temperatures between 15°C and 20°C. Under such conditions, shelf life will be 18 months from the date of manufacture.

Whilst all reasonable care is taken in compiling technical data on the Company's products, all recommendations or suggestions regarding the use of such products are made without guarantee, since the conditions of use are beyond the control of the Company. It is the customer's responsibility to satisfy themselves that each product is fit for the purpose for which they intend to use it, that the actual conditions of use are suitable and that in the light of our continual research and development programme the information relating to each product has not been superseded.

Health & Safety

AB Original consists of epoxy resins and hardener systems. Wear rubber or plastic coated gloves and refer to the Safety Data Sheet.

Chemical Resistance

10% Sulphuric Acid.....E
50% Sulphuric Acid.....E
Concentrated Sulp Acid.....P
10% Hydrochloric Acid.....E
10% Nitric Acid.....E
10% Phosphoric Acid.....G
10% Sodium Hydroxide.....E
5% Aluminium Sulphate.....E
Brake Fluid.....E
Petrol.....E
Crude Oil.....E
Ammonia (Household).....E
Ammonia (s.g. 0.88).....P
Creosote.....E
Methanol.....F
Ethanol.....F

10% Acetic Acid.....P
Sodium Hypochlorite.....E
1.1.1. Trichloroethane.....E
Ferric Chloride.....E
Water.....E
Sea Water.....E
Linseed Oil.....E
Castor Oil.....E
Phenol.....P
Cresol.....P
White Spirit.....E
Xylene.....E
Acetone.....F
Perchloroethylene.....E
Turpentine.....F
Benzene.....G

Diethleneglycol.....P
Dibutylphthalate.....E
Chlorinated Paraffin.....E
Hexane.....E
Ethyl Acetate.....F

Key: E = Excellent
F = Fair
G = Good
P = Poor

Case Studies



Pipe Repair - Reinforcement of Heavily Corroded Pipeline

A 600mm patch of heavy corrosion on the exterior of a steel pipe at a petrochemical plant in the Middle East meant that a breach of the line was imminent. To prevent this happening, a large amount of AB Original was applied to the pipe. When cured, the putty reinforced and strengthened the damaged section by rebuilding it back to its original thickness. The excellent chemical resistance of AB Original provided further protection for the pipe, acting as barrier against internal corrosion and a shield from external attack.



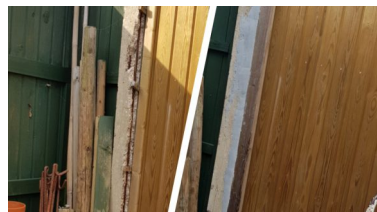
Pipe Repair - Sealing of Failed Pipe Repair Clamp via Encapsulation

A 350mm effluent pipe running beneath a salt marsh was discovered to be leaking just one year after undergoing repair with a clamp. The wall of the pipe was now so thin that removing the clamp risked the collapse of the entire line and the escape of huge amounts of contaminated water into the marsh. AB Original was used to encapsulate the clamp. Pushing the putty firmly around the pipe sealed all holes and cracks and left a super-strength, hard-wearing material which could easily withstand the harsh environment.



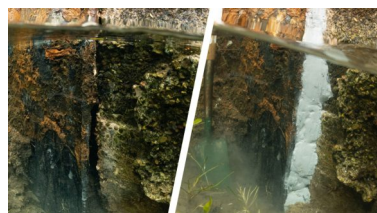
Gap Filling - Filler Repair of Crack Between Toilet Waste Pipe and Bathroom Floor

A hole cut into a bathroom floor during renovation work was mistakenly made too big for the toilet waste pipe it was housing, leaving a gap of up to 50mm between the pipe and the floor. AB Original was forced into the crack and smoothed off with a little water and a filling knife. This permanently filled the gap with a waterproof material which would withstand tapping, drilling, screwing, grinding, filing, painting or any other treatment used when the time came to install the new bathroom floor.



Damage Repair - Restoration of Concrete Fence Posts

Corrosion had caused steel reinforcements inside concrete fence posts to expand, leading to huge chunks of concrete falling away and disintegrating. When the time came to install a new trellis fence, the homeowner did not want to undertake the mammoth and costly task of removing and replacing every concrete post. Instead, they filled the damage using AB Original. The putty not only replaced the missing concrete but offered greater protection against future corrosion to the steel rods within.



Underwater Repair - Repairing a Cracked Wall Between a River and Trout Farm

The UK Environment Agency were alerted to a 700mm crack in an underwater wall between a river and a trout farm. This needed to be sealed so that the EA could obtain accurate recordings of how much water the farm was extracting from the river, and to ensure extraction stayed within legal limits. AB Original was pushed into the crack, starting above the waterline, moving below it and working right down to the riverbed. The putty easily adhered and cured underwater, permanently sealing the wall.

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