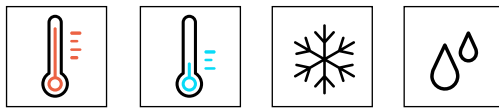


CompositePatch **STRUCTURAL EPOXY ADHESIVE**

Two-parts epoxy adhesive



- ✂ Structural Epoxy even for underwater applications
- ✂ Two-parts epoxy adhesive
- ✂ Density: 1,00 g/cm³
- ✂ Viscosity: 23.000 mPa·s

INTRODUCTION

Composite Patch Adhesive is indispensable for Composite Patch underwater applications. Composite Patch Adhesive should be used for rough surface repairs and mechanically stressed repairs. Composite Patch Adhesive rheology is close to a universal grease, making the mixing and application very easy with a spatula or static mixer gun. Even injection of the Composite Patch Adhesive is also possible.

APPLICATION

Composite Patch Adhesive is a high performance adhesive designed for bonding all type of structures in metal and/or composite. It is a cost-effective system with good thermal and mechanical properties.

HOW TO USE

It is recommended to keep the adhesive above 14° C for easier mixing, even that it can be apply at any temperature.

The surface should be clean, dust-free and degreased. Prepare all surfaces by abrading with medium grit paper or other suitable abrasive, remove dust then wipe with acetone, MEK or similar solvents if possible.

Metals may require a chemical pre-treatment to create the best bond. Ensure that polyester or vinylester laminates are fully cured before bonding.

The vertical sagging limit of 10mm on vertical applications & 20mm on horizontal applications will enable to bond bulkheads with 20 mm diameter fillet joints.

REACTIVITY

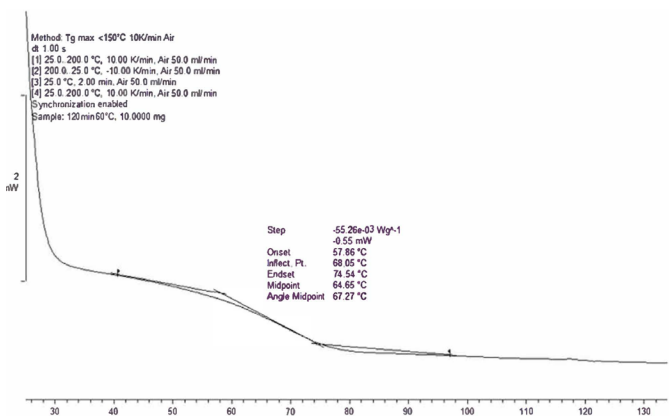
Optimal Properties	Gel Time
Gel Time on 70g @ 25°C	32 min
Gel time on 2mm film @25° C	60 min
Gel time on 500g @ 25°C	10 min

CURING

Optimal Properties	Gel Time
Clamp time @ 25° C	2 to 4 h

MECHANICAL PORPERTIES

Mechanical Property	Value
Tg	68°C



MECHANICAL PROPERTIES

Material Property	Unit	Value
Shore Hardness after 16h at 60°C	MPa	85
Shear adhesion (EN ISO 4624)	MPa	>24
Resistance to crack propagation 10,51 kN	kN	10,51
Resistance to failure in interlaminar mode - CC	kJ/m2	0,482 ± 0,142
Resistance to failure in interlaminar mode - MCC	kJ/m2	0,494 ± 0,149
Resistance to failure in interlaminar mode - MBT	kJ/m2	0,453 ± 0,071
Shear resistance on steel	MPa	30,49
Conservation of shear resistance in wet environment	%	98,70
Flexion Modulus	GPa	2.02
Flexural max. strenght	MPa	63,50
Flexural elongation at max strength	%	4,9%
Flexural elongation at break	%	>15%

PRODUCT PREPARATION

Follow the indications for warm temperatures and low temperatures to guarantee that the adhesive is going to perform well.



Preparation at warm temperature

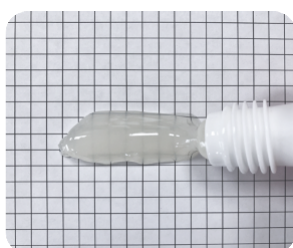
Step 1. Place the cartridge in the applicator gun and without the mixer discard the first 25mm-1" of mixture to ensure the resin and the hardener are going out at the same time.

Step 2. Put mixer supplied with the adhesive and to discard the first 50mm-2" of mixture to ensure the homogeneity of the mix.

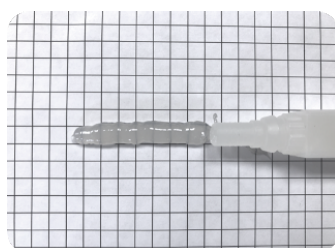


Preparation at cold temperature

If the temperature is lower than 10°C apply heat to the cartridge (hot bags, temperature boxes, put in the jacket...) If it is not possible to raise the temperature perform the mixture without mixer. Place the cartridge in the applicator gun and without the mixer discard the first 25mm-1" of mixture to ensure the resin and the hardener are going out at the same time as explained in **Step 1**.



Step 1: Discard 25mm-1" without mixer



Step 2: Discard 50mm-2" with mixer

CONSIDERATIONS

Make sure that the gun is robust and keeps the plunger at 90° with the inner ring. If the gun is of bad quality the plunger tends to twist which could cause a leak of resin/hardener in the interior.

Always use the cartridge with a gun and use the adhesive with its respective mixer. If no gun is available, apply pressure on the black ring on the bottom of the cartridge. **Never press in the internal white hole.**

PACKAGING

Composite Patch Adhesive is packaged in a cartridge universal and easy to use.



HEALTH & SAFETY

It is advised to follow basic rules such as avoiding skin contact and wear masks when producing dust. Skin contact must be avoided by wearing protective gloves. AplTec Composite patch recommends the use of disposable gloves for most applications. Ensure adequate ventilation in work areas. Respiratory protection should be worn if there is insufficient ventilation. If the skin becomes contaminated, then the area must be immediately cleansed. The use of resin-removing cleansers is recommended. To finish, wash with soap and warm water. The use of solvents on the skin to remove resins etc must be avoided. In case of eye contamination, wash with water and seek medical advice.

TRANSPORT & STORAGE

Shelf life is at least one year in sealed containers as provided. Keep containers sealed and away from heat and cold preferably between 10°C and 30°C in a well ventilated.



The data provided in this document is the result of tests and is believed to be accurate. We do not accept responsibility for the mishandling of these products and our liability is limited strictly to the value of the products we manufacture and supply.



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