

M50 FILLER

COATINGS FOR AIRCRAFT STRUCTURE PROTECTION



Product information



Epoxy-amine mastic filler with solid content. Can be applied by spraying, with a cloth or with a spatula for the structural and cosmetic repair of composite aircraft components.

This mastic filler can be combined with Mapaero P65-HG epoxy-amine primer.

Components



Base M50
Hardener / Catalyst M50
Thinner Diluant E

Specifications



Qualified in accordance with:

Airbus: AIMS 04-04-011 and AIMS 04-04-030 (ABP 4-3350)
Airbus Helicopters : ECS 7036-3821

Meets the following requirements:

AIPI 05-02-009

Physical properties



THEORETICAL COVERAGE

7.9 m²/kg for 50 µm (2 mils) dry (base and undiluted hardener)

DRY FILM WEIGHT

2.2

VOC

60 g/l (ISO11890-1 and ASTM D3960) undiluted

COLOR

Beige

SHELF LIFE / STORAGE

12 months for the base and hardener stored between 5°C and 35°C (41°F and 95°F) in full and sealed original packaging.

NOTES

Used as a filler in two-component applications: M50 base + M50 hardener.

Used as an anti-cracking filler in three-component applications: M50 base + M50 hardener + Thinner E.

Surface preparation



M50 is generally applied on composite primer, such as Mapaero P65-HG.

M50 filler can be applied directly on composite materials.

It is recommended to mechanically reactivate and clean before applying M50.

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Instructions for use



SPRAY APPLICATION

MIXING RATIO

Base
Hardener / Catalyst
Thinner

Mixing ratio by weight

60
40
0 to 10

Mixing ratio by volume

3 V
2 V
0 to 1.3 V

MIXING PROCEDURE

Ideally, the unmixed products should be stored between 18°C and 25°C (64°F and 77°F) for 24 hours before use.

Before using the base and hardener, mix the components with a spatula until you obtain an evenly mixed paste.

Carefully mix the base and hardener until you obtain an even colour.

When the product is applied as two components (M50 base + M50 hardener), it is recommended to mix the filler on a flat, smooth surface with a spatula (2 to 5 minutes) to avoid creating any bubbles.

Mixing by weight is recommended.

INDUCTION TIME

None

Spraying viscosity at 20°C / 68°F

ISO 6

10%
43 ± 8 s

POT LIFE @ 23°C

1.5 hours for spray application and 1 hour for spatula application.

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Application recommendations



CONDITIONS

Temperature 15°C to 35°C (59°F to 95°F)

Relative humidity 20% to 85%

EQUIPMENT

Gravity compressed air gun Nozzle 1.8 to 3.5 mm

DRY / WET FILM THICKNESS

50 to 2000 µm (2 to 78.7 mils) dry (depending on the method of application)

NUMBER OF COATS

Use as a filler with a spatula up to 2,000 µm (78.7 mils):

two-component application: M50 base + M50 hardener.

Use as a pore-filler up to 1,000 µm (39.4 mils):

three-component application: M50 base + M50 hardener + Thinner E.

Both uses can be combined as wet on wet.

EQUIPMENT CLEANING

Clean the equipment with an appropriate thinner, such as Thinner E or Mapaero D760.

NOTE

Spray with dry, oil-free air.

Drying times



Dust free
Recoat able
Fully Cured

23°C (73°F)
2 hours
6 hours to 72 hours
7 days

60°C (140°F)
N. A.*
20 minutes to 1 hour
3 hours

80°C (176°F)
N.A.*
10 minutes to 20 minutes
1 hour

NOTE

*N.A. : Non applicable

Drying times have been determined using composite test pieces ≤ 1 mm and for 100 µm (3.9 mils) of dry film. Before accelerated drying, leave to flash off for at least 20 minutes at room temperature.

After accelerated drying, leave the part to cool, then sand with the appropriate grade of paper (P150-P360).

Remove dust and wipe before painting.

Sanding should be carried out within 24 hours of the application for optimum sanding.

The drying times (evaporation and hardening) and temperature measurements are given as a guideline and may vary according to humidity, the shape of the part, the material it is made from and the thickness of the paint.

Defects & corrections



If there are still defects after sanding the M50, retouch with the spatula or spray gun depending on the remaining defects.

Health & Safety



See product Safety Data Sheets.

The MSDS are available through our website www.mapaero.com upon request.

Packing



The base is available in 0.6 kg and 3 kg containers.

The hardener is available in 0.4 kg and 2 kg containers.

Thinner E is available in 1 litre and 5 litre containers.

WARRANTY : We guarantee our products against hidden defaults over material and preparation. Our Responsibility is limited to the obligation of freely replacing the defective material without there being a claim for any compensation. The advice we give is based on our experience but it might not be absolutely right. Consequently this does not imply our responsibility in case of inefficiency. Furthermore our company cannot be responsible for any material or corporal damages caused due to a misuse or mishandling of our products. Any concession to these clauses, to be valid, must be an official document issued by our offices and signed by our direction.