

# M50 PUTTY / FILLER

## COATINGS FOR AIRCRAFT STRUCTURE PROTECTION

**AkzoNobel**

### Product information



Epoxy-amine product used as a putty or as filler with high-solid content. Can be applied by spray or with a spatula for structural and cosmetic repairs of composite.

This putty/filler can be combined with Mapaero P65-HG or P65-C chrome-free primer.

### Components



**Base M50**  
**Hardener / Catalyst M50**  
**Thinner Thinner E**

### Specifications



#### Qualified in accordance with:

Airbus: AIMS 04-04-011, AIMS 04-04-030 (ABP 4-3350), 80-T-35-9030  
Airbus Helicopters : ECS 7036-3821

Product information mentioned in the technical datasheet is given for information purposes and can differ from requirements of specifications above. In that case, customer requirements are valid for your application.

### Physical properties



#### THEORETICAL COVERAGE

7.9 m<sup>2</sup>/kg for 50 µm (2 mils) dry (base, hardener and thinner)

#### 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 and 48 months for thinner stored between 5°C and 35°C (41°F and 95°F) in full and sealed original packaging.

#### NOTES

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

Used as a pinhole filler in three-component applications: M50 base + M50 hardener + Thinner E. Gloss levels have been determined using glossmeter with an angle of incidence of 60°. The theoretical consumption value doesn't take into account the transfer efficiency for spray application.

### 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.

All recommendations mentioned above are given for information.

# M50 PUTTY / FILLER

## COATINGS FOR AIRCRAFT STRUCTURE PROTECTION

**AkzoNobel**

Instructions for use



### SPRAY APPLICATION

#### MIXING RATIO

	Mixing ratio by weight	Mixing ratio by volume
Base	60	3 V
Hardener / Catalyst	40	2 V
Thinner	10	1.5 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 with a spatula all components. Carefully mix the base and hardener until you obtain an homogeneous mixture, then add the thinner.

Mixing by weight is recommended.

#### INDUCTION TIME

None

#### Spraying viscosity at 20°C / 68°F

Dilution rate by weight  
10%

ISO 6  
43s ± 8s

#### POT LIFE

1h30

#### NOTE

Viscosities mentioned above are corresponding to the recommended range of viscosity to ensure compliant application. The range of dilution must be used to adjust viscosity to reach the recommended one.

# M50 PUTTY / FILLER

COATINGS FOR AIRCRAFT STRUCTURE PROTECTION

**AkzoNobel**

## Instructions for use



### BRUSH APPLICATION

	Mixing ratio by weight	Mixing ratio by volume
Base	60	3V
Hardener / Catalyst	40	2V

### MIXING PROCEDURE

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

### INDUCTION TIME

None

### POT LIFE

1 hour

## 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 µm to 2 mm (2 to 80 mils) dry / 90µm to 3.6mm wet (depending on the method of application)

### NUMBER OF COATS

Use as a filler with a spatula up to 2 mm (80 mils):  
two-component application: M50 base + M50 hardener.

Use as a pore-filler up to 1 mm (40 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.

# M50 PUTTY / FILLER

## COATINGS FOR AIRCRAFT STRUCTURE PROTECTION

**AkzoNobel**

### Drying times



	23°C (73°F)	60°C (140°F)	80°C (176°F)
<b>Dust free</b>	2 hours	N. A.*	N.A.*
<b>Dry to sand</b>	6 hours to 72 hours	30 minutes	10minutes to 20 minutes
<b>Recoatable</b>	6 hours to 72 hours	20 minutes to 1 hour	10minutes to 20 minutes
<b>Fully Cured</b>	7 days	3 hours	1 hour

#### NOTE

Drying times have been determined using composite test pieces 1 mm and for 100 µm (3.9 mils) dry.

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.

**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.**

\*N.A. : Non applicable

### Defects & corrections



In the event of a defect, contact your Quality Department. If there are still defects after sanding the M50, repair 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](http://www.mapaero.com) upon request.

### Packing



The base is available in 0.6 kg containers.  
The hardener is available in 0.4 kg containers.  
Thinner E is available in 1 L and 5 L containers  
The M50 Kit is available in 1 kg

**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.