

PRIMER P60-A

COATINGS FOR AIRCRAFT STRUCTURE PROTECTION

AkzoNobel

Product information



Strontium chromate-based, three-component water-reducible epoxy primer, with high chemical resistance. This product is designed for the protection of metallic structures on aircraft.

P60-A primer is recommended for use in combination with Mapaero F70-A structural topcoat.

Components



Base P 60-A

Hardener / Catalyst P 60-A

Thinner Demineralised water

Specifications



Qualified in accordance with :

Airbus: AIMS 04-04-001, AIMS 04-04-003, AIMS 04-04-004, AIMS 04-04-038, AIMS 04-04-040, AIMS 04-04-041, AIMS 04-04-042, AIMS 04-04-063, AIMS 04-04-064, ABP 4-1123, ASNA 5147, PQ N° 10050-230-01, CML 16-063, A2MS 565-001 Gr B Cat 1&2, Ty I, IPS 04-04-038-07

Bombardier: BAMS 565-001 Grade B Category 1, Type I & Category 2, Type I

Dassault: DGQT 1.7.0.0120

Embraer: MEP 10-059 Type III

Viking: VAMS 565-001 Grade B Category 1, Type I & Category 2, Type I

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

37 m²/l (1500 ft²/gal) for 15 µm (0.6 mils) dry (base and not diluted hardener)

DRY FILM WEIGHT

1.7

VOC

160 g/l (ISO11890-1) and 340 g/l (ASTM D3960)

COLOR

RAL6021 Green

SHELF LIFE / STORAGE

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

12 months in Touch-Up Kits, stored between 5°C and 35°C (41°F and 95°F) in full and sealed original packaging.

GLOSS LEVEL

20 GU at 60°

NOTES

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



P60-A primer is used particularly on aluminium alloys that have had the following treatments:

Alodine 1200: Cr6 conversion

CAA: Chromic Acid Anodising

SAA: Sulphuric Acid Anodising

TSA: Tartaric Sulphuric Anodising

BAA: Boric Acid Anodising

Observe the recoating time between the surface treatment and painting. This may vary depending on the treatment and industrial instructions.

Contact us for information on uses on other metallic structures, surface treatments or paints.

P60-A primer can also be used on sealants.

All recommendations mentioned above are given for information.

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Instructions for use



SPRAY APPLICATION

MIXING RATIO

	Mixing ratio by weight	Mixing ratio by volume
Base	100	2 V
Hardener / Catalyst	38	1 V
Water	65 to 130	2 V to 4V

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. The P60-A base should be mixed for 10 minutes in a pneumatic or oscillating mixer before use. Mix the base and hardener until the mixture is homogenous before adding demineralised water in two stages. The mixture must be made at a temperature between 15°C and 35°C (59°F and 95 °F). Sieve the paint through a 120-150 µm (4.7-5.9 mils) filter. Never add additional water once the paint mixture has been made.

INDUCTION TIME

None

INITIAL SPRAYING VISCOSITY

The equipment used for application can determine the desired dilution. The list below is a guide to the optimum viscosity for various types of equipment.

Air gun	18+/-3 sCA4
Electrostatic spray gun	18+/-3 sCA4
Pressurised pot	21+/-3 sCA4
Automatic Pump	21+/-3 sCA4
Mixing machine	23+/-3 sCA4

Spraying viscosity at 20°C / 68°F

Dilution rate in Volume	Cup CA4	ISO4	Zahn2
2 V	27	65	44
2.5 V	19	38	23
3 V	18	26	23
3.5 V	16	24	20
4 V	14	20	18

Viscosity values are given ± 3sec for CA4 Cup and ± 4sec for the others.

POT LIFE

8 hours for a 4 V dilution

NOTE

Pot life depends on the dilution ratio. The paint viscosity may vary depending on the temperature and increases over the pot life. The water used to dilute the paint should be demineralised with a conductivity < 25 µSiemens. Depending on the material used and the application temperature, the dilution may vary between 2 V and 4 V of demineralised water.

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. Water based paints show a thixotropic behaviour. This implies that efflux time can vary according different parameters such as: type of mixing, mixing quantity, dilution, temperature, time between mixing and viscosity measurement. ISO 4 cup is the reference cup. The others are given for information.

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BRUSH APPLICATION

	Mixing ratio by weight	Mixing ratio by volume
Base	100	2V
Hardener / Catalyst	38	1V
Water	0 or 35 to 50	0 V or 1 V to 1.5 V

MIXING PROCEDURE

Remove the safety ring and press down on the cap to release the P60-A hardener. Shake the container for approximately 1 minute. Remove the cap to be able to apply the P60-A primer with a suitable brush.

If the material after shaking of 1 Min. is not homogenous please use a stick for further mixing (around 1 Min.) until the material is homogen.



Do not hermetically close TUK after mixing base and hardener.

INDUCTION TIME

When diluting, wait 3 minutes before adding demineralised water.

POT LIFE

2 hours not diluted

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 0.8 to 1.8 mm

Electrostatic spray gun Nozzle 0.8 to 1.4 mm

DRY / WET FILM THICKNESS

15 to 25 µm (0.6 to 1 mils) dry / 50 to 80 µm (2 to 3.1 mils) wet for 3V dilution.

NUMBER OF COATS

Apply several coats to achieve 15 to 25 µm (0.6 to 1 mils) dry thickness.

The number of coats depends on the size and the shape of the part to which it is being applied.

The recommended dynamic air pressure is 1.5 bar to 4 bar (22 to 58 psi).

EQUIPMENT CLEANING

Clean the equipment with a suitable cleaning solvent such as Mapaero D760. Mapaero D770-B aqueous cleaning solvent can also be used for cleaning the ready-to-use mixture.

NOTE

Spray with dry, oil-free air.

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Drying times



	23°C (73°F)	60°C (140°F)	80°C (176°F)
Dust free	10 minutes	5 minutes	Not Applicable
Dry to handle	35 minutes	15 minutes	5 minutes
Dry to tape	1 hour 45 minutes	30 minutes	15 minutes
Dry to sand	1 hour	30 minutes	15 minutes
Recoatible	15 minutes to 120 hours	5 minutes to 2 hours	5 to 35 minutes
Fully Cured	3 days	2 hours	35 minutes

NOTE

"Wet on Wet" application: P60-A / F70-A system can be used wet on wet. At room temperature, leave P60-A primer flash off for 15 minutes in the spray booth and then recover with F70-A topcoat.

MEK resistance: After 23 hours at room temperature or 1 hour at 60°C, P60-A primer can be cleaned with MEK solvent.

Before accelerated drying 70°C, leave to flash off for at least 15 minutes at room temperature.

Recoating P60-A primer with another topcoat (Epoxy or Polyurethane) is possible. For process optimization, please contact us.

Drying P60-A primer with Infra Red is possible. For process optimization, please contact us.

Drying times have been determined using test pieces of a thickness < 2 mm and for 15 µm (0.6 mils) of dry film.

*N.A. : Not applicable

Defects & corrections



In the event of a defect, contact your Quality Department. **In case of low thickness:**

Apply a thin coat of P60-A to achieve the required thickness. If the above recommended recoating time is exceeded, reactivate with an abrasive pad.

For thick coats:

Contact your Quality Department.

If there are micro-bubbles, running, rejects or numerous inclusions:

Recoat the surface using an abrasive paper (grade 220 to 320), remove the dust then clean the surface using an approved cleaning product. Apply a thin coat of P60-A to achieve the required thickness.

If there are significant defects:

Remove the P60-A primer with an approved chemical paint remover or remove using a plastic medium (in this case, the surface treatment has to be repeated).

Health & Safety



See the product Safety Data Sheet.

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

Packing



P60-A base is available in 4 liters and 200 liters containers.

P60-A hardener is available in 2 liters and 200 liters containers.

P60-A kits are also available:

- 4 liters kits: 1.2 l P60-A Base + 0.6 l P60-A Hardener;
- 45 ml Touch-Up Kits (TUK) (30 ml P60-A Base + 15 ml P60-A Hardener);
- 12 ml Mini Touch-Up Kits (Mini TUK) (8 ml P60-A Base + 4 ml P60-A Hardener).

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.