

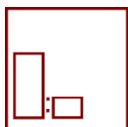
18A Series PTFE Filled Polyurethane Topcoats

Product description

Chemically cured, PTFE filled polyurethane topcoat is intended for use on exterior application on aircraft and aerospace equipment. When used over properly applied commercial or military primers, it provides excellent 5000 cycle-Taber abrasion and corrosion resistance.

- Resistant to water and solvent
- Compatible with many types of spray equipment

Components



Mix ratio (by volume):

- 18A Series (base component) 3 parts
- 18CAT (catalyst component) 1 part

Specifications



18A PTFE filled polyurethane topcoats are qualified to:

- FMS-1027 Type V
- LMA-MRO27 Type V

Note: PPG recommends you check the most recent specification QPLs for updated information.

Product compatibility:

18A PTFE filled polyurethane topcoats are compatible with the following primers:

- LMA-MR003
- MIL-PRF-85582
- MIL-PRF-23377

Surface preparation and pretreatments



18A PTFE filled polyurethane topcoats can be applied over properly cleaned epoxy primer.

Instructions for use



Mixing instructions:

Thoroughly stir or mechanically shake the base component (Part A) for at least 10 minutes before combining to ensure all solids are completely dispersed. Add one volume of catalyst component (Part B) to three volumes of base component (Part A). Do not use the catalyst component (Part B) from another color. Mix by hand stirring, paint shaker or mechanical mixing to ensure the base/catalyst mixture is

homogeneous. Do not shake or mechanically mix the admixed material for longer than 10 minutes.

Thinners are not required for the mixed material. Available thinners for polyurethanes are MIL-T-81772B Type I* (IS-213), VOC Exempt Reducer (IS-256) and Low HAPS thinner (IS-260). Do not add thinners to attempt to compensate for coatings beyond its useful pot life

Note: It is important to condition the paint for 24 hours prior to mixing by placing all materials in the shop or hangar, with ambient temperatures between 13° and 35°C (55° to 95°F). The minimum temperature of the paint components should be 13°C (55°F) prior to mixing.



Induction time:

Not required



Viscosity: (23°C/73°F)

- #4 Ford cup 30 seconds maximum

Note: Viscosities quoted are typical values obtained when using specified mix ratio.



Pot life:

4 hours @ 21 - 25°C (70 - 77°F)

Application guidelines

Optimum recommended application conditions:

Temperature 18 - 29°C (65 - 85°F)

Relative humidity 45 - 55%

Application:

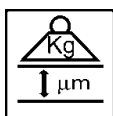
Coating may be applied over properly cleaned epoxy primer coatings. Apply the topcoat using two coats to a total dry film thickness of 2.0 – 3.0 mils. Allow the coating to air dry 30 - 60 minutes between coats.

These application guidelines represent PPG's best advice in standard conditions. Some parameters will be influenced by environmental conditions, equipment settings, and other variables.

**Theoretical coverage:**

20.0 – 20.6 square meters/liter at 25 microns dry film (712 – 773 square feet/gallon at 1 mil dry film)

Recommended dry film thickness; 50 to 75 microns (2.0 to 3.0 mils)

**Dry film density:**

1.48 - 1.84 grams/cubic centimeter (12.39 – 15.37 pounds/gallon)

Dry film weight:

37.74 – 46.77 grams/square meter at 25 microns dry film (0.00773 - 0.00958 pounds/square foot at 1 mil dry film)

**Equipment:**

18A PTFE filled polyurethane topcoats are compatible with all current forms of spray equipment.

Equipment type	Tip size	Pot pressure	Atomization pressure at the cap
Electrostatic air spray gun	1.2 mm or 1.5 mm	10 to 20 psi (0.69 to 1.4 bar)	45 to 60 psi (3.1 to 4.1 bar)
Electrostatic air Assisted Airless Spray Gun	#611 or #613 (Graco Nomenclature)	700 to 1200 psi (48 to 82 bar)	40 to 60 psi (2.8 to 4.1 bar)
High Volume Low Pressure Spray Gun (HVLP)	1.0 mm to 1.4 mm	10 to 20 psi (0.69 to 1.4 bar)	10 psi maximum (0.69 bar)
Conventional Air Spray Gun	1.2 mm to 1.8 mm	10 to 20 psi (0.69 to 1.4 bar)	45 to 60 psi (3.1 to 4.1 bar)

Equipment Cleaning:

Clean spray equipment as soon as possible after use. Flush spray equipment with IS-213 Polyurethane Reducer (MIL-T-81772 Type I) DeSoto® CN20, DeSoto® CN44, or Desoclean™ 45 high performance solvent cleaner. Once material is fully cured, use an approved chemical paint removal system to strip off coating.

Physical Properties (product)

Color: Available in limited colors.

Color description	Part number
27925 Semi-Gloss white	18W004A
37038 Camouflage black	18BK004A
36320 Camouflage gray	18GY011A

36118 Camouflage gray	18GY012A
36375 Camouflage gray	18GY013A
36270 Camouflage gray	18GY025A
LMAR027 Camouflage gray	18GY029A



Gloss: Semi-Gloss: 15 – 45 G.U. at 60°
Camouflage: 5 Max G.U. at 60°
9 Max G.U. at 85°



Dry Times	22 - 28°C (71 - 84°F)
Dry hard	8 hours maximum
Full cure	14 days

Forced Dry Schedule: For dry hard. Allow a minimum of 30 minutes flash off time at ambient temperatures* prior to exposing painted parts to high temperatures. Complete testing should be done prior to use. Below are suggested starting points. Other variables may affect these cure schedules.

Temperature	Time
49°C (120°F)	45 minutes
60°C (140°F)	30 minutes
71°C (160°F)	20 minutes
82°C (180°F)	15 minutes

**Ambient temperatures are defined as 70° ± 10°F and 50% ± 10% relative humidity*



VOC:

Mixed, ready to use VOC (EPA method 24) for all colors is < 660 grams/liter.



Flash point closed cup:

Base component	-5°C (23°F)
Activator component	58°C (136°F)

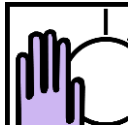
Shelf life:

12 months from date of manufacture to most OEM material specifications. Consult the specification to verify shelf life requirements.

Note: Shelf life is provided for original, unopened containers.

Note: The application and performance property values above are typical for the material, but not intended for use in specifications or for acceptance inspection criteria because of variations in testing methods, conditions and configurations.

Storage recommendations



Inspect the condition of the container to ensure compliance. The material should be stored at temperatures between 5°C to 35°C (41°F to 95°F) to ensure shelf life.

Note: When procuring to a qualified material specification, follow those storage instructions.

Health precautions

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Safety Data Sheet (SDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. An SDS is available on request. Avoid overexposure. Obtain medical care in case of extreme overexposure.

For industrial use only. Keep away from children.

Additional information can be found at: www.ppgaerospace.com

For sales and ordering information call the local PPG office at the numbers listed below:

Asia Pacific

ASC – Australia

Tel 61 (3) 9335 1557

Fax 61 (3) 9335 3490

ASC – Japan

Tel 81 561 35 5200

Fax 81 561 35 5201

ASC – South East Asia

Tel 65 6861 1119

Fax 65 6861 6162

ASC – Suzhou

Tel (86-512) 6661 5858

Fax (86-512) 6661 6868

ASC – Tianjin

Tel (86-022) 2482 8625

Fax (86-022) 2482 8600

Europe and Middle East

ASC – Central Europe

Tel 49 (40) 742 193 10

Fax 49 (40) 742 139 69

ASC – Middle East & India

Tel (971) 4 883 9666

Fax (971) 4 883 9665

ASC – North Europe

Tel 44 (0) 1388 770222

Fax 44 (0) 1388 770288

ASC – South Europe

Tel 33 (0) 235 53 43 71

Fax 33 (0) 235 53 54 44

Americas

1 (818) 362-6711 or 1-800-AEROMIX

Desoclean, Desoprime, DeSoto, and Koroflex are trademarks of PRC-DeSoto International, Inc.

All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.

PRC-DeSoto International,
Inc.

12780 San Fernando Road
Sylmar, CA 91342

www.ppqaerospace.com

Issue Date: 12/18
Lit: 4622