454-4-1 / 454-4-5 Integral Fuel Tank Coating

Product Group

Fuel tank coating

Characteristics

Product Information

- Chemically cured two component epoxy coating
- Provides protection from various chemicals, hydraulic fluids, aviation fuels, phosphate ester (Skydrol®) fluids, and corrosion causing media for aircraft fuel tanks.
- Compliant to VOC requirements for SCAQMD Rule 1124
- 454-4-5 is specifically designed for electrostatic spray.

Components

Curing Solution

Thinner

Curing Solution CA-109
Curing Solution X-395
Thinner TL-52

Specifications

Qualified Product List

Boeing	BMS 10-20 Type II, Class A, Gr A
Boeing	BMS 10-20 Type II, Class B, Gr A
Bombardier / Lear	LES 1079, 4.1.1, 4.1.4

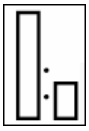
The complete Akzo Nobel Aerospace Coatings qualified product list (QPL) can be found at: www.anac.com

Surface Conditions

Cleaning

Alodine 1200 (per MIL-C-5441) or chromic acid anodized (per BAC 5019). See Section 8.2 of BMS 10-20.

Instruction for Use



Mixing Ratio (volume)

Conventional:

3 parts	Base 454-4-1
1 part	Curing Solution CA-109
0 - 0.25 part	Thinner TL-52 (optional)

Electrostatic:

3 parts	Base 454-4-5
1 part	Curing Solution X-395

- Stir or shake base till all pigment is uniformly dispersed before adding curing solution
- Stir the catalyzed mixture thoroughly
- Thinner is not normally required

Induction Time

30 minutes

Akzo Nobel Aerospace Coatings, a division of International Paint LLC (USA), East Water Street, Waukegan, IL 60085, USA
Phone (847) 623 4200, Fax (847) 625 3200
Akzo Nobel Aerospace Coatings BV, Rijksstraatweg 31, P.O. Box 3, 2170 BA Sassenheim, the Netherlands
Phone (31) 71 3082905, Fax (31) 71 3082056

Internet: www.anac.com

454-4-1 / 454-4-5 Integral Fuel Tank Coating

 Initial Spraying Viscosity (23ºC/73ºF)	10 – 20 seconds ISO Cup # 4 10 – 20 seconds Signature Zahn Cup # 2 10 – 20 seconds Ford Cup # 4 The uses of Signature Zahn Cups for viscosity are requirements of the referenced specifications, and the ISO Cup measurement is provided only as a reference for field application. They are not provided as quality control values.
 Pot life (231ºC/73ºF)	8 hours.
 Dry Film Thickness (DFT)	8 – 20 microns (µm) 0.3 – 0.8 mils

Application Recommendations

 Conditions	Temperature:	15 – 35°C 59 – 95°F
	Relative Humidity:	35 – 75%
 Equipment	Conventional Air	1.4 mm (.055 inch) nozzle orifice
	Air assist airless Electrostatic	.28 mm (.011 inch) nozzle - 60° angle .33 mm (.013 inch) nozzle - 80° angle
 Number of Coats	Spray a single wet coat.	
 Cleaning of Equipment	Use MEK or TR-36.	
 Note	The quality of the application of all coatings will be influenced by the spray equipment chosen and the temperature, humidity, and air flow of the paint application area. When applying the product for the first time, it is recommended that test panels be prepared in order to identify the best equipment settings to be used in optimizing the performance and appearance of the coating.	

Akzo Nobel Aerospace Coatings, a division of International Paint LLC (USA), East Water Street, Waukegan, IL 60085, USA
Phone (847) 623 4200, Fax (847) 625 3200
Akzo Nobel Aerospace Coatings BV, Rijksstraatweg 31, P.O. Box 3, 2170 BA Sassenheim, the Netherlands
Phone (31) 71 3082905, Fax (31) 71 3082056

Internet: www.anac.com

Physical Properties

Drying Times (23ºC/73ºF)	Dust-free at RT	30 minutes maximum
	Tack-free at RT	3 hours maximum
	Dry Hard at RT	12 hours maximum
	Force cure (recommended)	30 minutes ambient flash, followed by 1 hour at 71°C/160°F.

Theoretical Coverage

454-4-1 Admixed (unreduced):
8.9 m^2/liter ready to apply at 25.4 µm dry film thickness
363 ft^2/US gallon ready to apply at 1 mil dry film thickness

454-4-5 Admixed (unreduced):
8.9 m^2/liter ready to apply at 25.4 µm dry film thickness
363 ft^2/US gallon ready to apply at 1 mil dry film thickness

Dry Film Weight

454-4-1 Admixed:
43.59 g/m^2 at 25.4 microns
.0089 lbs/ft^2 at 1 mil

454-4-5 Admixed:
43.72 g/m^2 at 25.4 microns
.0090 lbs/ft^2 at 1 mil

Volatile Organic Compounds

454-4-1:
Max. 652 g/l (5.4 lbs/gal) with no thinner per ASTM D3960.
Max. 663 g/l (5.5 lbs/gal) with 0.25 parts TL-52

454-4-5:
Max. 672 g/l (5.6 lbs/gal) with no thinner per ASTM D3960

Gloss (60º)

10 maximum GU

Color

Yellow

Flash-point

454-4-1	-5°C / 23°F
454-4-5	7°C / 45°F
CA-109	-5°C / 23°F
X-395	7°C / 45°F
TL-52	-5°C / 23°F

Akzo Nobel Aerospace Coatings, a division of International Paint LLC (USA), East Water Street, Waukegan, IL 60085, USA
Phone (847) 623 4200, Fax (847) 625 3200
Akzo Nobel Aerospace Coatings BV, Rijksstraatweg 31, P.O. Box 3, 2170 BA Sassenheim, the Netherlands
Phone (31) 71 3082905, Fax (31) 71 3082056

Internet: www.anac.com

Storage	Store the product dry and at a temperature between 5-25ºC/41-77ºF. Stored in the original unopened containers. Periodical short time exposure (max. 48 hrs at a time) to higher temperatures (max. 40°C/104°F) will not negatively influence the shelf life of the products.
Shelf life 5 - 25°C (41 - 77°F)	12 months per ANAC commercial specification Shelf life may vary due to OEM specification requirements

Safety Precautions

Comply with all local safety, disposal and transportation regulations. Check the Material Safety Data Sheet (MSDS) and label of the individual products carefully before using the products. The MSDSs are available on request.

FOR PROFESSIONAL USE ONLY

Akzo Nobel Aerospace Coatings, a division of International Paint LLC (USA), East Water Street, Waukegan, IL 60085, USA
Phone (847) 623 4200, Fax (847) 625 3200
Akzo Nobel Aerospace Coatings BV, Rijksstraatweg 31, P.O. Box 3, 2170 BA Sassenheim, the Netherlands
Phone (31) 71 3082905, Fax (31) 71 3082056

Internet: www.anac.com