



# FORMIDABLE

Military/Defense Product Selection Guide



Visit [oem.sherwin-williams.com/military](http://oem.sherwin-williams.com/military)



# MILITARY/DEFENSE SELECTION GUIDE

Sherwin-Williams offers the dedication you need from a military solutions provider, supported by a full complement of products that feature the protection and durability demanded in this market. From our wide range of products, to our technical support and value-added services through the entire finishing process, Sherwin-Williams provides your total finishing solution. When survivability and dependability are critical, you can rely on a partner that has been supplying protective coatings for 150 years.

We offer a **FORMIDABLE** advantage.

## PRIMERS

Product	Part #	Color
<b>DOD-P-15328</b> Metal Wash Primer, Pretreatment Formula 117 (4:1 with V93VC2)	E90G4	Green
<b>MIL-C-8514</b> Pretreatment Wash Primer (4:1 with V93V17)	E90G16	Green

Product	Part #	Color	QPD #
<b>MIL-DTL-53022, Type II</b> 2K Epoxy Primer 3.5 VOC (4:1 with V93V227)	E90H0H226	Buff	Q2125
	E90H226	Buff	Q1563
<b>MIL-DTL-53022, Type III</b> 2K Epoxy Primer 2.8 VOC (HAPS Free) (4:1 with V93VC200)	E90HC227	Light Gray	Q1949
	E90W227	Light Gray	Q2209
	E90WC227	White	Q1908
	E90H0H227	Light Gray	Q2162
<b>MIL-DTL-53022, Type IV</b> 2K Epoxy Primer 2.8 VOC (HAPS FREE) (4:1 with V93V235) - fast cure catalyst	E90A228	Light Gray	Q2056
	E90A230	Light Gray	Q2211
<b>MIL-DTL-53022, Type IV</b> 2K Epoxy Primer 0 VOC (VO-HAPS FREE) (4:1 with V93V234)	E90A229	Light Gray	Q1915
	E90A231	Light Gray	Q2210
<b>MIL-DTL-53022, Type V</b> 2K Epoxy Primer Aerosol, 250 ml	E90A228SP	Light Gray	Q2087
<b>MIL-DTL-53022, Type V</b> 2K Epoxy Primer Aerosol, 400 ml	E90A228SP	Light Gray	Q2088
<b>MIL-DTL-53030, Type II</b> 2K Waterborne Epoxy Primer (VO-HAPS Free) (4:1 with V93V505)	E90W501	Off White	Q1917
<b>MIL-DTL-53030, Type III</b> 2K Waterborne Epoxy Primer Tru-Mix Cartridges (300 ml/600 ml)	E90W501K (300 ml)	Off White	Q2027
	E90W501K (600 ml)	Off White	Q2028
<b>MIL-DTL-11414</b> Fast Dry, Corrosion-Inhibiting VO-HAPs Free Alkyd Primer	E90R351	Red	Q2195

# PRIMERS

Product	Part #	Color	QPD #
MIL-PRF-23377, Type I, Class C2 Chromated Epoxy Polyamide Primer using standard pigments, 2.8 VOC (3:1 with V93V230)	E90G203	Green	434100A/1162
MIL-PRF-23377, Type II, Class C2 Chromated Epoxy Polyamide Primer using low infrared reflective pigments; 2.8 VOC (3:1 with V93V230)	E90G205	Green	434100A/7

Product	Part #	Description
MIL-PRF-32550, Type I, Form A Zinc Rich Epoxy Primer (4:1 with V93V30)	E90G17	Two Component; 90% Zinc Content
MIL-PRF-32550, Type I, Form A	E90GC101	Single Component; 92% Zinc Content
MIL-PRF-32550, Type III, Form A	EAS6-C0025	Powder Technology 62% Zinc Content



# CHEMICAL AGENT RESISTANT COATINGS (CARC) – TOPCOATS

Product	Part #	Fed Std Color #	Color	QPD #
MIL-DTL 53039, Type III (Polymeric) 1K Aliphatic Polyurethane 1.5 VOC (VO-HAPS FREE)	F93R100	31136	Aircraft Red	Q1905
	F93B111	37030	Black	Q1789
	F93N110	30051	Brown 383	Q1911
	F93G110	34094	Green 383	Q1913
	F93H119	33303	Sand	Q1973
	F93H115	33446	Tan 686A	Q1711
MIL-DTL 53039, Type IV (Polymeric) Moisture Cure Topcoat 1K Aliphatic Polyurethane 1.0 VOC (VO-HAPS FREE)	F93G0S116*	34094	Green 383	Q2050
	F93H0S124*	33446	Tan 686A	Q2051
	F93B0S114*	37030	Black	Q2201
	F93B0S114*	37038	Aircraft Black	Q2201
	F93R101	31136	Aircraft Red	Q2093
	F93W103	37875	Aircraft White	Q2124
	F93B114	37038	Aircraft Black	Q2163
	F93B114	37030	Black	Q2048
	F93N113	30051	Brown 383	Q2049
	F93G116	34094	Green 383	Q2050
	F93H124	33446	Tan 686A	Q2051
	F93H126	33303	Sand	Q2082
	MIL-DTL 53039, Type IX (Polymeric) Moisture Cure Topcoat 1K Aliphatic Polyurethane 3.5 VOC (VO-HAPS FREE)	F93H0S118	33446	Tan 686
F93G0S111		34094	Green 383	Q2178
F93B0S112		37030	Black	Q2202
F93H125		33245	Earth Yellow	Q2081
F93G114		34088	Olive Drab	Q2035
F93H120		33303	Sand	Q2002
F93H118		33446	Tan 686A	Q1922
F93A32		36231	Aircraft Interior Gray	Q2004
F93B112		37038	Aircraft Black	Q2164
F93G119		34031	Aircraft Green	Q2154
F93Y103		33538	Aircraft Yellow	Q2094
F93W101		37875	Aircraft White	Q2003

## CHEMICAL AGENT RESISTANT COATINGS (CARC) – TOPCOATS

Product	Part #	Fed Std Color #	Color	QPD #
MIL-DTL 53039, Type IX (Polymeric) Moisture Cure Topcoat 1K Aliphatic Polyurethane 3.5 VOC (VO-HAPS FREE)	F93N111	30051	Brown 383	Q1972
	F93B112	37030	Black	Q1989
	F93B112	37038	Aircraft Black	Q2164
	F93G111	34094	Green 383	Q1912

Product	Part #	Fed Std Color #	Color
A-A-59166 Anti-Skid Technology Moisture Cure Urethane (Based on MIL-DTL-53039 Type IV)	F93G118	34094	Green 383
	F93H128	33446	Tan 686A
	F93B115	37030	Black
	F93N114	30051	Brown 383
A-A-59166 Anti-Skid Technology Moisture Cure Urethane (Based on MIL-DTL-53039 Type IX)	F93G121	34094	Green 383
	F93H130	33446	Tan 686A
	F93B116	37030	Black
A-A-59166 Anti-Skid Technology 2K Waterborne Polyurethane (Based on MIL-DTL-64159B Type II)	F93G513	34094	Green 383
	F93H511	33446	Tan 686A
	F93B508	37030	Black
	F93N507	30051	Brown

Product	Part #	Fed Std Color #	Color	QPD #
MIL-DTL-64159, Type II 2K Waterborne Polyurethane (2:1 with V93V502)	F93B506	37038	Aircraft Black	Q1680
	F93G505	34031	Aircraft Green	Q1661
	F93B505	37030	Black	Q1655
	F93N505	30051	Brown 383	Q1654
	F93G509	34160	Foliage Green	Q1764
	F93G504	34094	Green 383	Q1653
	F93A501	36231	Interior Aircraft Gray	Q1765
	F93H504	33446	Tan 686A	Q1660
	F93G510	34201	Woodland Desert Sage	Q1910
	F93G512	34088	Olive Drab	Q2168
MIL-DTL-64159, Type III 2K Waterborne Polyurethane Tru-Mix™ Touchup Cartridges (30, 300, 600 ml)	F93G505KS (30 ml)	34031	Aircraft Green	Q2022
	F93G505KM (300ml)	34031	Aircraft Green	Q1877
	F93B505KS (30 ml)	37030	Black	Q2020
	F93B505KM (300 ml)	37030	Black	Q1875
	F93B505KL (600 ml)	37030	Black	Q2080
	F93N505KS (30 ml)	30051	Brown 383	Q2026
	F93N505KM (300 ml)	30051	Brown 383	Q1878

## CHEMICAL AGENT RESISTANT COATINGS (CARC) – TOPCOATS

Product	Part #	Fed Std Color #	Color	QPD #
MIL-DTL-64159, Type III 2K Waterborne Polyurethane Tru-Mix™ Touchup Cartridges (30, 300, 600 ml)	F93N505KL (600 ml)	30051	Brown 383	Q2081
	F93G504KS (30 ml)	34094	Green 383	Q2021
	F93G504KM (300 ml)	34094	Green 383	Q1876
	F93G504KL (600 ml)	34094	Green 383	Q2079
	F93A501KS (30 ml)	36231	Interior Aircraft Gray	Q2019
	F93A501KM (300 ml)	36231	Interior Aircraft Gray	Q2029
	F93A501KL (600 ml)	36231	Interior Aircraft Gray	Q2030
	F93H504KS (30 ml)	33446	Tan 686A	Q2025
	F93H504KM (300 ml)	33446	Tan 686A	Q2033
	F93H504KL (600 ml)	33446	Tan 686A	Q2034
	F93G510KS (30 ml)	34201	Woodland Desert Sage	Q2024
	F93G510KM (300 ml)	34201	Woodland Desert Sage	Q2031
	F93G510KL (600 ml)	34201	Woodland Desert Sage	Q2032



# MILITARY TOPCOATS

Product	Part #	Fed Std Color #	Color	QPD #
<b>MIL-PRF-22750, Type II</b> High Solids Epoxy Topcoat (4:1 with V93V228)	F93A603	36375	Flat Gray	Q2042
	F91W226	17925	Gloss White	Q2043
	F92G227	24533	Seafoam Green	Q2128
	F92H101	23446	Tan	N/A
	Custom Federal Standard 595 Colors Also Available			
<b>MIL-PRF-22750, Type III, Class H, Grade A</b> High Solids Epoxy Topcoat Direct to Metal (4:1 with V93V234) *No Primer Required	F92H102	23446	Tan	N/A
	F92A27	26492	Gray	N/A
	F92A27	26492	Gray	N/A
	F93H4	33446	Tan 686A	N/A
	F92G228	24533	Seafoam Green	Q2131
	F92G28	24300	Green	N/A
	F93A604	36375	Medium Gray	I/P
	F92A28	26231	Gray	Q2241
	F92A604	36375	Gray	Q2240
	Custom Federal Standard 595 Colors Also Available			
<b>MIL-PRF-85285, Type I, Class H (Aircraft)</b> High Solids Polyurethane Topcoat *see data sheet for catalyst ratio	F91W26*	17925	Gloss White	Issued 9/24/1996
	F93A29	36375	Flat Gray	Issued 9/24/1996
<b>MIL-PRF-85285, Type II, Class H (Support Equipment)</b> High Solids Polyurethane Topcoat (4:1 with V66V255) *see data sheet for catalyst ratio	F93A601	36375	Flat Gray	Issued 2/10/1999
	F91W600	17925	Gloss White	Issued 2/10/1999
	F92AC0603	26270	Gray	N/A
	F92G601	24052	Green	N/A



# POWDER COATINGS

Product	Part #	Fed Std Color #	Color	QPD #
<b>MIL-PRF-32348, Type I, Class I</b> Epoxy Powder Primer for use with CARC Topcoats	EHS2-20012	N/A	Off White	Q2013
	EWS8-60001	17875	White	Q2012
<b>MIL-PRF-32348, Type II, Class I</b> Epoxy Powder Primer/Interior Use Only	EBS8-90003	17038	Black	Q2045
	EBS1-60010	37038	Black	Q2152
	EAS4-90006	26307	Gray	Q2054
	EES8-60002	12300	Orange	Q2221
	EGS2-90007	24533	Seafoam Green	Q2046
	EHS2-90015	23446	Tan 686A	Q2055
	EWS8-90004	17925	White	Q2047
	EHS2-80001	33446	Tan 686A	Q2146
<b>MIL-PRF-32348, Type III</b> Powder CARC Topcoats (VO-HAPS Free)	UBS1-80004	37030	Black	Q2203
	UGS1-80000	34094	Green 383	Q2224
	UHS1-80000	33446	Tan 686A	Q2265
<b>MIL-PRF-32348, Type IV</b> Powder Primer/Ammunition Container for use with CARC Topcoats	UHS2-20025	33446	Tan 686A	Q2110
	UGS2-90021	34079	Forest Green	Q2111

Product	Part #	Fed Std Color #	Color
<b>MIL-PRF-24712, Type I, Class IV</b> Epoxy Powder Without Zinc, Interior Single Coat Product	EWS4-90006	27880	Soft White
	EBS4-20012	27038	Black
	EWS4-90007	27886	Bone White
	ERS4-90002	21105	Red
	EES4-90001	22246	Safety Vivid Orange
	EYS4-90001	23655	Yellow
	ERS4-90003	27144	Dark Purple
	EAS4-30009	25526	Blue
	EGS6-30001	24585	Green
	EAS6-30003	26493	Gray
	EHS6-30003	22563	Sand

## MUNITIONS COATINGS

Product	Part #	Fed Std Color #	Color	QPD #
<b>MIL-DTL-11195, Type II</b> Fast Dry, Lusterless Enamel 3.5 VOC (VO-HAPS FREE) *Designates MAK-free	F93BL350	37030	Black	Q2059
	F93LC350	35109	Blue	Q1668
	F93NC350	30117	Brown	Q1725
	F93GC355	34079	Forest Green	Q1667
	F93AC350	36231	Gray	Q1670
	F93AC351	36375	Gray	Q1677
	F93GC358	34540	Green	Q1783
	F93GC350	34558	Green	Q1669
	F93GC353	34088	Olive Drab	Q1665
	F93RL350	31158	Red	Q2060
	F93HC350	33446	Tan 686A	Q2078
	F93WC350	37875	White	Q1666
	F93WL350	37925	White	Q2153
	F93YC350	33538	Yellow	Q1722
*F93GC359	34079	Forest Green	Q2120	
*F93HC351	33446	Tan 686A	Q2121	

Product	Part #	Fed Std Color #	Color
<b>Urethane Powder Coatings</b> These powder coatings are not eligible for QPD approval.	UAS1-60004	36231	Gray
	UAS1-60003	36375	Gray
	UGS1-60002	34588	Green
	UGS1-60003	34540	Green
	UNS1-60003	30117	Brown
	ULS1-60000	35109	Blue
	UWS1-60003	37875	White
	UYS1-60002	33538	Yellow

## OTHER MILITARY SOLUTIONS

Product	Part #	Fed Std Color #	Color	QPD #
<b>MIL-PRF-14105, Type I</b> High Heat (Barium-Free)	C71B6	37030	Black	Q2212

Product	Part #	Description
<b>MIL-T-81772, Type I</b>	R91K20	Polyurethane Reducer
<b>MIL-T-81772, Type II</b>	R91K210	Epoxy Reducer

Product	Part #	Description
<b>HAPS-FREE CARC</b> Solvent Reducer	R91K25	Blend (75/25) Tertiary Butyl Acetate/Methyl Amyl Ketone

Product	Part #	Fed Std Color #	Color
<b>MIL-170 Envirolastic</b> 100% Solids Polyurea Hybrid Coating System (1:1 with F93V802)	F92B800	N/A	Black
	F92G803	34094	Green 383
	F92A801	N/A	Light Gray
	F92H804	33446	Tan 686A

Product	Part #	Color
<b>MIL-530 Envirolastic</b> 100% Solids Polyurea Coating System Tru-Mix™ Touchup Cartridges (300, 600, 750 ml) (1:1 with F93BV802) *Available in cartridges	F92B801*	Black
	F92B801S (300 ml)	Black
	F92B801M (600 ml)	Black
	F92B801L (750 ml)	Black

## SOLVENTS/BLENDS

Product	Part #
VOC Exempt Solvent Blend	R91KC1
Thinner Dope and Lacquer	R91KC1
Ordnance Reducer	R7KC340
Epoxy Ordnance Reducer	R7KC341
Solvent Blend	R7KL1
Methyl Ethyl Ketone (MEK)	R6K10
Methyl Isobutyl Ketone (MIBK)	R6K16
Methyl Amyl Ketone (MAK)	R6K30
Acetone	R6K9
Tertiary Butyl Acetate (TBA)	R6K38
Tertiary Butyl Acetate (TBA)	R6K221
Xylol	R2K4

## DRUM INFORMATION

Product	Fill Level	Drum Type	Lined or Unlined	Agitator	Designation (Fill REX)
<b>MIL-DTL-53039</b> Moisture Cure CARC Products All Types	50	Open Head	UNLINED	YES	A
	50	Open Head	UNLINED	NO	B
	50	Closed Head	UNLINED	YES	C
	50	Closed Head	UNLINED	NO	D
<b>MIL-DTL-64159</b> Water Dispersible CARC Products	50	Open Head	100% Phenolic	YES	E
	50	Open Head	100% Phenolic	NO	F
	50	Closed Head	100% Phenolic	YES	G
	50	Closed Head	100% Phenolic	NO	H
<b>MIL-DTL-53022</b> 2K Epoxy Primer All Types	50	Open Head	UNLINED	YES	A
	50	Open Head	UNLINED	NO	B
	50	Closed Head	UNLINED	YES	C
	50	Closed Head	UNLINED	NO	D
<b>MIL-DTL-53030</b> Water-Reducible 2K Epoxy Primer All Types	50	Open Head	100% Phenolic	YES	E
	50	Open Head	100% Phenolic	NO	F
	50	Closed Head	100% Phenolic	YES	G
	50	Closed Head	100% Phenolic	NO	H

## MILITARY SPECIFIED FINISHES GENERAL PRODUCT INFORMATION

### **MIL-DTL-53039, Type III, 1.5 VOC, Polymeric: CC-M24**

This specification covers single component, chemical agent resistant, aliphatic polyurethane coatings for use as a finish coat on military equipment. The coating is lead and hexavalent chromium free and contains a maximum of 1.5 pounds/gallon (180 grams/liter) volatile organic compounds. This product is also VO-HAPS Free. Polymeric flattening agents are used to lower the gloss in this coating.

### **MIL-DTL-53039, Type IV, 1.0 VOC, Polymeric: CC-M24**

This specification covers single component, chemical agent resistant, aliphatic polyurethane coatings for use as a finish coat on military equipment. The coating is lead and hexavalent chromium free and contains a maximum of 1.0 pounds/gallon (120 grams/liter) volatile organic compounds. This product is also VO-HAPS Free. Polymeric flattening agents are used to lower the gloss in this coating.

### **MIL-DTL-53039, Type VIII**

This specification covers single component, chemical agent resistant, aliphatic polyurethane coatings supplied as self-contained portable kits. Application can include aerosol, brush, roller and cartridge methods. The coatings have a maximum volatile organic content (VOC) of 1.5 pounds/gallon (180 grams/liter), with the exception of aerosols, which shall have a maximum VOC of 3.5 pounds/gallon (420 grams/liter).

### **MIL-DTL-53039, Type IX, 3.5 VOC, Polymeric: CC-M25**

This specification covers single component, chemical agent resistant, aliphatic polyurethane coatings for use as a finish coat on military equipment. The coating is lead and hexavalent chromium free and contains a maximum of 3.5 pounds/gallon (420 grams/liter) volatile organic compounds. This product is also VO-HAPS Free. Polymeric flattening agents are used to lower the gloss in this coating.

### **MIL-DTL-64159, Type II: CC-M21**

This specification covers water-dispersible, chemical agent resistant, aliphatic polyurethane coatings for use as a finish coat on all military tactical equipment, which includes ground, aviation and related support equipment. The coatings are HAPS Free and have a maximum volatile organic compound (VOC) content of 1.8 pounds/ gallon (220 grams/liter) as packaged. Polymeric flattening agents are used to lower the gloss in this coating.

### **MIL-DTL-64159, Type III: CC-M21**

This specification covers water-dispersible, chemical agent resistant, aliphatic polyurethane coatings packaged in various quantities for small volume or touchup applications for use as a finish coat on all military tactical equipment, which includes ground, aviation and related support equipment. The coatings are HAPS Free and have a maximum volatile organic compound (VOC) content of 1.8 pounds/ gallon (220 grams/liter) as packaged. Polymeric flattening agents are used to lower the gloss in this coating.

### **MIL-DTL-53022, Type II: CC-M5**

This specification covers a fast drying, corrosion inhibiting epoxy primer for ferrous and nonferrous metal substrates. This primer is high solids, lead and chromate free, formulated to meet a maximum volatile organic compound (VOC) content of 3.5 pounds/ gallon (420 grams/ liter) as packaged.

### **MIL-DTL-53022, Type III, HAPS Free, 2.8 VOC: CC-20**

This specification covers a fast drying, corrosion inhibiting epoxy primer for ferrous and nonferrous metal substrates. This primer is high solids, lead and chromate free, formulated to meet a maximum volatile organic compound (VOC) content of 2.8 pounds/ gallon (340 grams/ liter) as packaged.



## MILITARY SPECIFIED FINISHES GENERAL PRODUCT INFORMATION

### **MIL-DTL-53022, Type IV, HAPS Free, 2.8 VOC: CC-M27**

This specification covers a fast drying, corrosion inhibiting epoxy primer for ferrous and nonferrous metal substrates. This product exhibits superior corrosion protection when compared to standard MIL-DTL-53022D, Type II and Type III primers.

### **MIL-DTL-53022, Type V**

This specification covers a fast drying, corrosion inhibiting epoxy primer for ferrous and nonferrous substrates. Type V contains portable kits. The kits contain the Type IV corrosion inhibiting epoxy primer in a touchup system.

### **MIL-DTL-53030, Type II: CC-M28**

This specification covers a two component, waterborne, corrosion inhibiting, epoxy primer for pretreated ferrous and nonferrous metal substrates. The primer is lead and chromate free and is compatible with chemical agent resistant (CARC) aliphatic polyurethane topcoats. This primer contains no more than 2.8 pounds/gallon (340 grams/liter) of volatile organic compounds (VOC). EPP approved.

### **MIL-DTL-53030, Type III – Touchup Cartridges**

This specification covers a two component, waterborne, corrosion inhibiting, epoxy primer packaged in various quantities for small volume or touchup applications for pretreated ferrous and non-ferrous metal substrates. The primer is lead and chromate free and is compatible with chemical agent resistant (CARC) aliphatic polyurethane topcoats. This primer contains no more than 2.8 pounds/gallon (340 grams/liter) of volatile organic compounds (VOC). EPP approved.

### **MIL-DTL-11414**

This specification covers the requirements of a fast drying, corrosion inhibiting, low VOC content alkyd primer for metal surfaces. This primer is lead and chromate free and contains no more than 420 grams per liter (3.5 pounds per gallon) of VOCs as applied.

### **MIL-PRF-22750, Type I: CC-M17 and Type II: CC-M17A**

This specification covers a two component, high solids epoxy coating with a maximum volatile organic compound (VOC) content of 2.8 pounds/gallon (340 grams/liter). Grade A.

### **MIL-PRF-22750 Type III: CC-M38**

This specification covers a two component, high solids epoxy coating with a maximum volatile organic compound (VOC) content of 2.8 pounds/gallon (340 grams/liter) that is intended to be used direct to metal. The coatings exhibit enhanced corrosion performance, including a minimum 1,000 hours salt spray resistance and 40 cycles on cyclic corrosion testing. This type is only available in semi-gloss and lusterless colors.



### **MIL-PF-85285, Type I, Class H: CC-M14A**

This product is a high-performance, two component polyester urethane, designed for exterior use on high-performance general aviation and commercial aircraft.

### **MIL-PRF-85285, Type II, Class H**

This specification covers a polyurethane coating for ground support equipment that contains no more than 2.9 pounds/ gallon (340 grams/ liter) volatile organic compounds (VOC).

### **MIL-PRF-32348, Type I**

This specification covers powder coatings on metallic substrates. These coatings have zero volatile organic content (VOC), are free of volatile organic hazardous air pollutants (VOHAPS), and hazardous air pollutants (HAPS), other than cobalt and hexavalent chrome. Type I products are for use as primers with chemical agent resistant (CARC) finish coatings.

### **MIL-PRF-32348, Type II**

This specification covers powder coatings on metallic substrates. These coatings have zero volatile organic content (VOC), are free of volatile organic hazardous air pollutants (VOHAPS), and hazardous air pollutants (HAPS), other than cobalt and hexavalent chrome. Type II products are for interior use only, as a primer with no finish topcoat.

### **MIL-PRF-32348 Type III**

This specification covers powder coatings for use as chemical agent resistant (CARC) topcoat. These coatings have zero volatile organic content (VOC) and are free of organic hazardous air pollutants (VO-HAPS) and hazardous air pollutants (HAPS), other than potentially cobalt and hexavalent chrome.

## MILITARY SPECIFIED FINISHES GENERAL PRODUCT INFORMATION

### **MIL-PRF-32348, Type IV**

This specification covers powder coating on metallic substrates. These coatings have zero volatile organic content (VOC), are free of volatile organic hazardous air pollutants (VO-HAPS), and hazardous air pollutants (HAPS), other than cobalt and hexavalent chrome. Type IV products are used when an ammunition coating is required.

### **MIL-PRF-24712**

This specification covers thermosetting powder coatings for shipboard metallic equipment, furniture, electrical enclosures, and other miscellaneous metal parts and outfitting hardware, in non-immersion service in both interior and exterior environments. The thermosetting powder resins types may be epoxy, triglycidyl isocyanurate (TGIC) polyester, or hybrids of these resins.

### **DOD-P-15328: CC-M12**

This specification covers pretreatment wash primer for use on clean metal surfaces of all types as a treatment prior to application of a coating system. The purpose of the material is to increase adhesion of a coating system, and should not be used as a permanent protective coating by itself.

### **MIL-C-8514: CC-M13**

This specification covers pretreatment wash primer for use on clean metal surfaces of all types as a treatment prior to application of a coating system. The purpose of the material is to increase adhesion of a coating system, and should not be used as a permanent protective coating by itself.

### **MIL-PRF-23377, Type I, Class C2: CC-M7**

This specification covers corrosion inhibiting, chemical and solvent resistant, solvent-borne, high solids epoxy primers that have a maximum volatile organic compounds (VOC) content of 2.8 pounds/ gallon (340 grams/liter). Type I primers use standard pigments. Class C2 refers to the use of strontium chromate based corrosion inhibitors.

### **MIL-PRF-23377, Type II, Class C2: CC-M7**

This specification covers corrosion inhibiting, chemical and solvent resistant, solvent-borne, high solids epoxy primers that have a maximum volatile organic compounds (VOC) content of 2.8 pounds/ gallon (340 grams/liter). Type II primers use low infrared reflective pigments. Class C2 refers to the use of strontium chromate based corrosion inhibitors.

### **MIL-T-81772, Type I and Type II**

This specification covers three types of thinners to be used in aircraft coatings. Type I is for use in polyurethane coatings, Type II in epoxies, and Type III is used with acrylics and alkyds.

### **MIL-PRF-32550 (Old CID AA-59745)**

This commercial item description covers coatings used in the corrosion protection of steel substrates/structures. The coating is formulated as containing 90% zinc rich epoxy technology. These coatings used zinc rich particles that make up part of the pigment content to provide cathodic protection to the substrate.

### **CID-A-A-59166**

This Commercial Item Description covers nonslip compound used for walkways on exterior surfaces. Type I is smooth texture (without grit) and Type II is rough texture (with grit).

### **MIL-DTL-11195, Type II: CC-M22**

This specification covers a fast drying, lusterless, low volatile organic compound (VOC) content alkyd enamel for use on interior and exterior metal surfaces. These enamels are formulated free of lead and hexavalent chromium, with a maximum VOC content of 3.5 pounds/ gallon (420 grams/liter) as packaged. The Type II contains corrosion inhibiting pigments and is formulated free of hazardous air pollutants (HAPS Free).

### **Envirolastic MIL-170: CC-M-26**

Envirolastic Mil 170 products are aromatic polyurea hybrid technology spray applied coatings which are 100% solids and thus are zero volatile organic content (VOC). These coatings exhibit extreme toughness and elastomeric performance characteristics, while exhibiting flexibility and low odor. The technology retains its performance from -20° F – 250° F, and is available in a variety of colors.

### **MIL-PRF-14105, Type I: CC-M35**

This specification covers heat-resistant, ambient dry/heat cure paint able to withstand temperatures to a maximum of 1400°F (760°C). The paint is intended to be used on steel surfaces exposed to high temperatures and exterior weathering. The coating is HAPS free.