

# PRODUCT INFORMATION

## MIL-PRF-16173E

### USA MILITARY-SPECIFIED, SOLVENT-CUTBACK CORROSION PREVENTIVE COMPOUNDS

Daubert® has been a supplier to the US Military for rust preventive coatings, protecting the largest equipment in every branch of the armed forces. All products listed below are approved by MIL-PRF-16173E. These general-purpose rust preventive coatings are classified into 5 “grades” with each grade available in two class types. Class 1 grades are the conventional grades and can be used where VOC is not a concern. Class 2 grades are all available with a VOC level of 2.8 pounds per gallon or less.

In addition... certain TECTYL® products below are also approved for MIL-P-116J. Where applicable, their P-116J “type” is listed in the bottom row.

### APPROVED COATINGS FOR USA MILITARY SPECIFICATION: MIL-PRF-16173E

LABORATORY DATA	Grade 1		Grade 2		Grade 3		Grade 4		Grade 5	
	891D Class 1	891D Class 2	502C Class 1	502C Class 2	894 Class 1	894 Class 2	846 Class 1	846D Class 2	511M Class 1	511M Class 2
Liquid Appearance	Black, Light Viscosity	Black, Light Viscosity	Brown	Brown	Amber	Amber	Amber	Amber	Light Amber	Light Amber
Dry Film Color	Black	Black	Amber	Amber	Amber	Amber	Amber	Amber	Light Amber	Light Amber
Film Type	Firm, Glossy	Firm, Glossy	Oily	Oily	Semi-Firm	Semi-Firm	Firm	Firm	Semi-Firm, Oily	Semi-Firm, Oily
Non-Volatiles by Weight	50.4%	65.6%	60.42%	67%	57.5%	66.2%	55.2%	65%	50.5%	66.7%
Non-Volatiles by Volume	44.1 %	59.7%	56.4%	63.1%	53.4%	62.2%	50.4%	57.2%	46.6%	63.2%
Specific Gravity	0.88	0.91	0.86	0.87	0.85	0.87	0.86	0.95	0.84	0.86
Weight per Gallon	7.3	7.6	7.12	7.25	7.09	7.24	7.16	7.91	6.99	7.16
V.O.C. (lbs/gal minus water)	3.64	2.63	2.82	2.4	3.01	2.45	3.22	2.8	3.46	2.38
Viscosity	1,500 cPs Brookfield RV Spindle #3 @ 10rpm	2,300 cPs Brookfield RV Spindle #3 @ 10rpm	65 cSt @ 100°F	200 cSt @ 100°F	41 cSt @ 100°F	17.8 cSt @ 100°F	78.5 cSt @ 100°F	90 cSt @ 100°F	40 cSt @ 100°F	60 cTs @ @ 100°F
Flash Point	105°F	105°F	105°F	105°F	105°F	105°F	105°F	105°F	105°F	105°F
Dry Film Thickness	2.5 mils	2.8 mils	0.86 mils	1.0 mil	0.4 mils	0.7 mils	1.0 mil	1.0 mil	0.3 mils	0.4 mils
Coverage (sq.ft/gal)	340	344	850	1,000	1,215	1,329	818	962	2,138	2,586
Cure Time	16 hours		24 hours		24 hours		24 hours		24 hours	
Removal: Wet and Dry Film	Mineral Spirits or Citrus Based Cleaners		Mineral Spirits or Citrus Based Cleaners		Mineral Spirits or Citrus Based Cleaners		Mineral Spirits or Citrus Based Cleaners		Mineral Spirits or Citrus Based Cleaners	
MIL-P-116J Approval	Type 1		Type 19		N/A		N/A		Type 21	

**ACCELERATED  
CORROSION  
TEST**

	Grade 1		Grade 2		Grade 3		Grade 4		Grade 5	
	891D Class 1	891D Class 2	502C Class 1	502C Class 2	894 Class 1	894 Class 2	846 Class 1	846 Class 2	511M Class 1	511M Class 2
5% Salt Spray (Hours) ASTM* B-117 @ Recommended DFT	864	960	624	720	N/A	N/A	1,000	1,000	168	168
100% Relative Humidity (Hours) ASTM* D-1748 @ Recommended DFT	960	960	4,100	4,100	4,800	4,800	4,800	4,800	4,608	4,608
Indoor Exposure	5 years	5 years	2 years	2 years	2 years	2 years	5 years	5 years	1.5 years	1.5 years
Outdoor Exposure	2 years	2 years	6 months	6 months	2 months	2 months	2 years	2 years	2 months	2 months

**APPLICATION**

Preferred application for these solvent-based, rust preventative products is dipping. These products can also be applied by brush or spray. Daubert Chemical Company recommends that the ambient and product temperature be 50 - 95°F (10 - 35°C) at time of application.

\*ASTM (American Society for Testing and Materials)

\*\*\*Please Refer to SDS or Contact Daubert Chemical Company for Additional Information\*\*\*

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