Society of Automotive Engineers, Inc.
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AEROSPACE STANDARD

AS 269G
Superseding AS 269F
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IDENTIFICATION OF MATERIAL FOR AN, MS, AND AS ENGINE AND PROPELLER STANDARD UTILITY PARTS AND ALSO FOR COMPANY PARTS

1. PURPOSE - The purpose of this AS is to provide material identification codes for aluminum alloys, copper alloys, carbon steels, alloy steels, titanium alloys, corrosion resistant materials, and heat resistant materials that are used to make AN, MS, and AS Engine and Propeller Standard Utility Parts. It is also the purpose of this AS to provide similar material codes for company parts (such as nuts, bolts, etc.) having design configuration similar to other company parts or the Engine and Propeller Standard Utility Parts (AN, MS, and AS) that are not of the same material.

2. MATERIAL IDENTIFICATION CODE

2.1 Individual material code designations are restricted to materials of the same composition, irrespective of the raw stock configuration.

2.2 AN, MS, and AS Engine and Propeller Standard Utility Parts: The material codes established for Engine and Propeller Standard Utility Parts (AN, MS, and AS) are prefixed with the letter "E" in order to identify engine and propeller constant quality standard parts. In common temperature ranges the "E" prefix and number comprise the material code for materials specified on parts generally used in temperature applications not exceeding 550°F (288°C). Corrosion resistant materials for parts generally used in temperature applications between 550°F and 800°F (288°C and 427°C) have a material code consisting of an "EC" prefix and a number. Heat resistant materials for parts generally used in temperature applications above 800°F (427°C)have a material code consisting of an "EH" prefix and a number. Titanium alloys have a material code consisting of an "ET" prefix and a number.

2.3 Company Parts: The material codes used for company parts agree in principle with those used on AN, MS, and AS Engine and Propeller Standard Utility Parts except that the letter "E" prefixing the standard utility parts material code has been omitted on titanium alloy materials, corrosion resistant materials and heat resistant materials. The prefix letter "E" was replaced with prefix letter "S" for common temperature range materials. This was done in order to distinguish company parts from AN, MS, AND AS Engine and Propeller Standard Utility Bulletin No. 403 and also for AS standard utility parts.

2.4 Material codes have been assigned for common temperature range, corrosion resistant, heat resistant, and titanium materials as follows:

COMMON TEMPERATURE RANGE

Material Code		
Stand. Parts AN, MS, AS	Company Parts	Material Specification
E1	S1	AMS 6282, AMS 6320, AMS 6357 or AMS 6535
E2	S2	AMS 7225
E3	S3	AMS 4121, AMS 4135 or AMS 4153
E4	S4	AMS 5061
E5	S5	AMS 5045

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COMMON TEMPERATURE RANGE (Continued)

Material Code		
Stand. Parts AN, MS, AS	Company Parts	Material Specification
(a)E6	(a)S6	AMS 6357 (See E1)
E7	S7	AMS 6280, AMS 6281, AMS 6355, AMS 6530, or AMS 6550
(a)E8	(a)S8	AMS 6327 (See E11)
E9	S9	AMS 5024
E10	S10	AMS 5040
E11	S11	AMS 6322, AMS 6323, AMS 6325, AMS 6327, or AMS 6358
E12	S12	AMS 4037, AMS 4120, or AMS 4152
E13	S13	AMS 4045, AMS 4122, AMS 4139, or AMS 4154
(a)E14	(a)S14	AMS 4152 (See E12)
(a)E15	(a)S15	AMS 4153 (See E3)
(a)E16	(a)S16	AMS 4154 (See E13)
E17	S17	AMS 5060
E18	S18	AMS 5062
E19	S19	AMS 5120
E20	S20	AMS 5121
E21	S21	AMS 6324
E22	S22	AMS 6328
E23	S23	AMS 6350, AMS 6370, or AMS 6371
E24	S24	(b) AMS 6352, AMS 6365, or AMS 6372
(a)E26	(a)S26	AMS 6355 (See E7)
(a)E27	(a)S27	AMS 6358 (See E11)
(a)E28	(a)S28	AMS 6370 or AMS 6371 (See E23)
E30	S30	AMS 6381 or AMS 6382
E31	S31	AMS 6412 or AMS 6413
E32	S32	AMS 6440 or AMS 6441
E33	S33	AMS 4500
E34	S34	AMS 6359 or AMS 6415
E36	S36	(b) AMS 6300
E37	S37	AMS 6304
E38	S38	AMS 6418
E39	S39	AMS 6485
E40	S40	AMS 4003
E41	S41	AMS 4150
E42	S42	AMS 4352
CORROSION RESISTANT		
EC1	C1	AMS 5640
EC2	C2	AMS 5628
EC3	C3	AMS 5515, AMS 5516, AMS 5517, AMS 5518, AMS 5519, AMS 5636, or AMS 5637
EC4	C4	AMS 7228
(a)EC5	(a)C5	AMS 5636 (See EC3)

CORROSION RESISTANT (Continued)

Material Code			Material Specification
	Stand. Parts AN, MS, AS	Company Parts	
	EC6	C6	AMS 5354, AMS 5508, or AMS 5616
	EC7	C7	AMS 5610
	EC8	C8	AMS 5504, AMS 5612, or AMS 5613
	EC9	C9	AMS 5624
	EC10	(a) C10	AMS 5513, 5560, 5565, 5566, 5639
	(a) EC11	(a) C11	AMS 5504 (See EC8)
	EC12	C12	AMS 5738
	EC13	C13	AMS 5630
	EC14	C14	AMS 5643
	EC15	C15	AMS 5625
	EC16	C16	AMS 5506, AMS 5620, or AMS 5621
	EC17	C17	AMS 5644
	EC18	C18	AMS 5743
	EH1	H1	AMS 7229
	EH2	H2	AMS 7232
	EH3	H3	AMS 5526, AMS 5527, AMS 5720, AMS 5721, AMS 5722
	EH4	H4	AMS 5642
	EH5	H5	AMS 5512, AMS 5571, or AMS 5646
	EH6	H6	AMS 5733
HEAT RESISTANT	EH7	H7	AMS 5510, AMS 5557, AMS 5559, AMS 5570, AMS 5576, or AMS 5645
	EH8	H8	AMS 5524 or AMS 5648
	EH9	H9	AMS 5540, AMS 5580, or AMS 5665
	EH11	H11	AMS 5521, AMS 5572, or AMS 5651
	EH12	H12	AMS 5522 or AMS 5652
	(a) EH13	(a) H13	AMS 5720 (See EH3)
	EH14	H14	AMS 5542, AMS 5667, or AMS 5668
	EH15	H15	CHROMEL
	EH16	H16	ALUMEL
	EH17	H17	AMS 5649
	EH18	H18	AMS 5532 or AMS 5768
	EH19	H19	AMS 5525, AMS 5731, AMS 5732, AMS 5734, AMS 5735, AMS 5736, or AMS 5737
	EH20	H20	AMS 5511 or AMS 5647
	EH21	H21	AMS 5754
	EH22	H22	AMS 5530, AMS 5750
	EH23	H23	AMS 5545, AMS 5712, or AMS 5713
	EH24	H24	AMS 5551, AMS 5756, or AMS 5757
	EH25	H25	AMS 5660
	EH26	H26	AMS 5708
	EH27	H27	AMS 5759
	EH28	H28	AMS 5662
	EH29	H29	AMS 5666
	ET1	T1	AMS 4921
	ET2	T2	AMS 4923
TITANIUM	ET3	T3	AMS 4925
	ET4	T4	AMS 4927
	ET5	T5	AMS 4928 or AMS 4967
	ET6	T6	AMS 4929

3. MATERIAL DEVIATION - All material substitutions shall conform to ANA Bulletin No. 182.

4. NEW MATERIALS - Upon request the SAE will consider assigning material codes to materials not listed in this AS. The SAE will coordinate proposed additions or alterations in this AS with the SAE Committee E-25. Material codes should not be assigned to new materials without the approval of the SAE.

5. CANCELLED MATERIAL CODES - The following specifications and their respective material codes have been cancelled:

E25	S25	AMS 6353
E29	S29	AMS 6380
EH10	H10	AMS 5767

6. NOTES

(a) Inactive for design after Sept. 1, 1959. Materials of the same type (i.e., same chemical composition) have been reassigned a single code regardless of raw stock form.

(b) AMS 6300 and AMS 6352 are non-current, as defined in the AMS Index.

7. NUMERICAL INDEX OF AMS SPECIFICATIONS LISTED IN THIS DOCUMENT

	MATERIAL CODE			MATERIAL CODE	
AMS NO.	AN, MS, AS STDS	COMPANY PARTS	AMS NO.	AN, MS, AS STDS	COMPANY PARTS
4003	E40	S40	4967	ET5	T5
4037	E12	S12	5024	E9	S9
4045	E13	S13	5040	E10	S10
4120	E12	S12	5045	E5	S5
4121	E3	S3	5060	E17	S17
4122	E13	S13	5061	E4	S4
4135	E3	S3	5062	E18	S18
4139	E13	S13	5120	E19	S19
4150	E41	S41	5121	E20	S20
4152	E12 (E14)	S12 (S14)	5354	EC6	C6
4153	E3 (E15)	S3 (S15)	5504	EC8 (EC11)	C8 (C11)
4154	E13 (E16)	S13 (S16)	5506	EC16	C16
4352	E42	S42	5508	EC6	C6
4500	E33	S33	5510	EH7	H7
4921	ET1	T1	5511	EH20	H20
4923	ET2	T2	5512	EH5	H5
4925	ET3	T3	5513	EC10	C10
4927	ET4	T4	5515	EC3	C3
4928	ET5	T5	5516	EC3	C3
4929	ET6	T6	5517	EC3	C3