



## Aerospace Alloys Technical Specifications

### ASTM & FED-QQ

ASTM B21I Cold finish  
ASTM B22I Extruded  
QQ-A-200/3 Alloy 2024 QQ-A-200/8 Alloy 6061  
QQ-A-200/9 Alloy 6063  
QQ-A-200/11 Alloy 7075  
QQ-A-200/15 Alloy 7075  
QQ-A-200/16 Alloy 6061  
QQ-A-225/1 Alloy 1100 QQ-A-225/2 Alloy 3003  
QQ-A-225/3 Alloy 2011  
QQ-A-225/4 Alloy 2014  
QQ-A-225/5 Alloy 2017  
QQ-A-225/6 Alloy 2024  
QQ-A-225/7 Alloy 5052  
QQ-A-225/8 Alloy 6061  
QQ-A-225/9 Alloy 7075  
QQ-A-225/10 Alloy 6262  
QQ-A-250/1 Alloy 1100 QQ-A-250/2 Alloy 3003  
QQ-A-250/4 Alloy 2024  
QQ-A-250/5 Alloy 2024  
QQ-A-250/6 Alloy 5083  
QQ-A-250/7 Alloy 5086  
QQ-A-250/8 Alloy 5052  
QQ-A-250/9 Alloy 5456  
QQ-A-250/10 Alloy 5454  
QQ-A-250/11 Alloy 6061  
QQ-A-250/12 Alloy 7075  
QQ-A-250/13 Alloy 7075  
QQ-A-250/24 Alloy 7075  
QQ-A-250/30 Alloy 2219  
WW-T-700/1 Alloy 1100 WW-T-700/2 Alloy 3003  
WW-T-700/3 Alloy 2024  
WW-T-700/4 Alloy 5052

### BRITISH ALLOYS

6L16 Alloy 1200 sheet and strip H14 or H24  
6L17 Alloy 1200 sheet and strip O Temper  
5L34 Alloy 1200 Forging Stock and Forgings  
4L35 Ingots and Castings (Obsolescent)  
5L36 Alloy 1050A Rivet Stock  
6L37 Alloy 2014A Rivet Stock  
5L44 Alloy 5251 Forging Stock and Forgings  
3L51 Ingots and Casting (Obsolescent)  
3L52 Ingots and Casting (Obsolescent)  
3L53 Ingots and Casting (Obsolescent)  
4L54 Alloy 1200 Tube Drawn Hydraulically Tested  
3L56 Alloy 5251 Tube Drawn Hydraulically Tested  
3L58 Alloy 5056A Rivet Stock  
4L59 Alloy 3103 Sheet and Strip H16 or H26  
4L60 Alloy 3103 Sheet and Strip H12 or H22  
4L61 Alloy 3103 Sheet and Strip O Temper  
3L63 Alloy 2014A Tube Drawn T6  
2L77 Alloy 2014A Forging Stock & Forgings  
3L78 Ingots & Casting (Obsolescent)  
3L80 Alloy 5251 Temper O Sheet & Strip  
3L81 Alloy 5251 H16 or H26 Sheet & Strip  
2L83 Alloy 2031 Forging Stock & Forgings  
2L84 Alloy 6066 T4 Bars & Sections  
2L85 Forging Stock & Forgings  
3L86 Alloy 2117 Rivet Stock  
2L87 Alloy 2014A T6 Bars & Sections  
2L88 Alloy 7075 T6 Clad Sheet & Strip  
2L91 Ingots and Casting (Obsolescent)  
2L92 Ingots and Casting (Obsolescent)  
2L93 Alloy 2014A T651 Plate  
2L95 Alloy 7075 T651 Plate  
2L97 Alloy 2024 T351 Plate  
2L98 Alloy 2024 T4 Plate (Obsolescent)  
2L99 Ingots & Castings  
L102 Alloy 2014 T4 Bars & Sections  
L103 Alloy 2014A Forging Stock & Forgings



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- L105 Alloy 2014A T4 Tube Drawn
- L109 Alloy 2024 T4 Clad Sheet & Strip
- L110 Alloy 2024 T42 Clad Sheet & Strip
- L111 Alloy 6082 T6 Bars & Sections
- L112 Alloy 6082 Forging Stock & Forgings
- L113 Alloy 6082 T6 Sheet & Strip
- L114 Alloy 6082 T6 Drawn Tube
- L115 Alloy 6082 T651 Plate
- L116 Alloy 1200 Drawn Tube
- L117 Alloy 6061 T6 Drawn Tube
- L118 Alloy 6061 T6 Hydraulically Tested Drawn Tube
- L119 Ingots & Castings
- L154 Ingots & Castings
- L155 Ingots & Castings
- L156 Alloy 2014A T4 Sheet & Strip
- L157 Alloy 2014A T6 Sheet & Strip
- L158 Alloy 2014A T4 Close Tolerance Sheet & Strip
- L159 Alloy 2014A T6 Close Tolerance Sheet & Strip
- L160 Alloy 7075 Bars and Sections T7351
- L161 Alloy 7075 Forging Stock & Forgings
- L162 Alloy 7075 Forging Stock & Forgings
- L163 Alloy 2014A T3 Clad Sheet & Strip
- L164 Alloy 2014A T4 Clad Sheet & Strip
- L165 Alloy 2014A T6 Clad Sheet & Strip
- L166 Alloy 2014A T4 Close Tolerance Clad Sheet & Strip
- L167 Alloy 2014A T6 Close Tolerance Clad Sheet & Strip
- L168 Alloy 2014A T6/T6510/T6511 Bars & Sections
- L169 Ingots & Castings
- L170 Alloy 7075 T651/T6510/T6511 Bars & Sections
- L171 Alloy 7014 Forgings
- L172 Alloy 7014 Forging Stock
- L173 Castings
- L174 Castings

## AMS ALUMINIUM AEROSPACE ALLOYS

- AMS 4001 1100 T0 Sheet & Plate - QQ-A-250/1F
- AMS 4003 1100 H14 Sheet & Plate - QQ-A-250/1
- AMS 4004 5052 Strain Hardened Foil
- AMS 4006 3003 T0 Sheet & Plate - QQ-A-250/2
- AMS 4008 3003 H14 Sheet & Plate - QQ-A-250/2
- AMS 4009 6061 T0 Foil
- AMS 4011 1145 T0 Foil & Light Gage Sheet
- AMS 4015 5052 T0 Sheet 777and Plate QQ-A-250/8
- AMS 4016 5052 H32 Sheet & Plate QQ-A-250/8
- AMS 4017 5052 H34 Sheet & Plate QQ-A-250/8
- AMS 4021 6061 T0 AlClad Sheet & Plate
- AMS 4022
- AMS 4023
- AMS 4025 6061 T0 Sheet & Plate
- AMS 4026 6061 T4 / T451 Sheet & Plate QQ-A-250/11
- AMS 4027 6061 T6 / T 651 Sheet & Plate QQ-A-250/11
- AMS 4028 2014 T0 Sheet & Plate QQ-A-250/3 T0
- AMS 4029 2014 T651 Sheet & Plate
- AMS 4031 2219 T0 Sheet & Plate QQ-A-250/30
- AMS 4033 2024 T351 Superseded by AMS 4037
- AMS 4034 2024 T351 Superseded by AMS 4041
- AMS 4035 2024 T0 Sheet & Plate QQ-A-250/4
- AMS 4036 2024 T3 Sheet & T351 Plate AlClad one side
- AMS 4037 2024 T3 Sheet & T351 Plate QQ-A-250/4E
- AMS 4038 7075 T651 Superseded by AMS 4045
- AMS 4039 7075 T651 Superseded by AMS 4049
- AMS 4040 2024 T0 AlClad Sheet and Plate QQ-A-250/5
- AMS 4041 2024 T3 / T351 AlClad Sheet & Plate QQ-A-250/5
- AMS 4044 7075 T0 Sheet & Plate QQ-A-250/12
- AMS 4045 7075 T6 Sheet & Plate QQ-A-250/12E T6 / T659 ASTM B209
- AMS 4046 7075 T6 / T651 AlClad one side Sheet & Plate QQ-A-250/18F
- AMS 4048 7075 T0 AlClad Sheet & Plate QQ-A-250/13 T0 ASTM B209



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AMS 4049 7075 T6 / T651 AlClad Sheet & Plate QQ-A-250/13

AMS 4050 7050 T7451 Plate

AMS 4051 7178 T0 Alclad Sheet & Plate QQ-A-250/15

AMS 4053 6061

AMS 4056 5083 T0 Sheet & Plate QQ-A-250/6

AMS 4062 1100 H14 Seamless Drawn Tube WW-T-700/1

AMS 4066 2219 T851 Seamless Drawn Tube

AMS 4067 3003 H14 Seamless Drawn Tube WW-T-700/2

AMS 4068 2219 T351 Seamless Drawn Tube

AMS 4069 5052 T0 Seamless Drawn Tube, Close Tolerance WW-T-700/4

AMS 4070 5052 T0 Seamless Drawn Tube WW-T-Aluminium 700/4 T0

AMS 4071 5052 T0 Seamless Drawn Tube, Hydraulic WW-T-700/4

AMS 4077 2024 T0 Alclad Sheet & Plate ASTM B209

AMS 4078 7075 T351 Plate QQ-A-250/12

AMS 4079 6061 T0 Seamless Drawn Tube, Close Tolerance WW-T-700/6

AMS 4080 6061 T0 Seamless Drawn Tube WW-T-700/6

AMS 4081 6061 T4 Seamless Drawn Tube, Hydraulic MIL-T-7081

AMS 4082 6061 T6 Seamless Drawn Tube WW-T-700/6 T6

AMS 4083 6061 T6 Seamless Drawn Tube, Hydraulic MIL-T-7081

AMS 4084 7475 T61 Sheet

AMS 4085 7475 T761 Sheet

AMS 4086 2024 T3 Seamless Drawn Tube, Hydraulic

AMS 4087 2024 T0 Seamless Drawn Tube WW-T-700/3

AMS 4088 2024 T3 Seamless Drawn Tube WW-T-700/3

AMS 4089 7475 T7651 Plate

AMS 4090 7475 T651 Plate

AMS 4091 Superseded by AMS 4081

AMS 4092 Superseded by AMS 4082

AMS 4093 Superseded by AMS 4083

AMS 4094 2219 T81Sheet T851 Plate AlClad

AMS 4095 2219 T31 Sheet T351 Plate AlClad

AMS 4096 2219 T0 AlClad Sheet and Plate

AMS 4100 7475 T761 AlClad Sheet

AMS 4101 2124 T851 Plate QQ-A-250/29 T851

AMS 4102 1100-Tempmer F Bar, Rod and Wire Cold Finish QQ-A-225/1

AMS 4107 7050 T74 Die Forgings

AMS 4108 7050 T7452 Die Forgings

AMS 4109 7175 T735 Superseded by AMS 4149

AMS 4110 2017 T451 Superseded by AMS4118

AMS 4111 7049 T73 Forgings QQ-A-367 Alloy 7049 T73

AMS 4112 2024 T6 Superseded by AMS 4339 QQ-A-225/6

AMS 4113 6061 T6 Extruded Shapes QQ-A-200/16

AMS 4114 5052 TF Bar & Rod - Rolled or Cold Finish

AMS 4115 6061 T0 Bar, Rod & Wire - Rolled or Cold Finish QQ-A-225/8

AMS 4116 6061 T4 Bar, Rod & Wire - Rolled or Cold Finish QQ-A-225/8

AMS 4117 6061 T6 / T651 Bar, Rod & Wire - Rolled or Cold Finish QQ-A-225/8

AMS 4118 2017 T4 / T451 Bar, Rod & Wire - Rolled or Cold Finish QQ-A-225/5

AMS 4119 2024 T351 Superseded by AMS4120

AMS 4120 2024 T4 / T351 Bar, Rod & Wire - Rolled or Cold Finish QQ-A-225/6

AMS 4121 2014 T6 Bar, Rod & Wire - Rolled or Cold Finish QQ-A-225/4D

AMS 4122 7075 T6 Rod, Bar & Wire - Rolled or Cold Finished QQ-A-225/9

AMS 4123 7075 T651 Bar & Rod - Rolled or Cold Finished

AMS 4124 7075 T7351 Bar, Rod & Wire - Rolled, Drawn or Cold Finish



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AMS 4125 6151 T6 Die Forgings - Rolled & Forged  
AMS 4126 7075 T6 Forgings QQ-A-367 Alloy 7075T6 MIL-A-22771  
AMS 4127 6061 T6 Forgings - Rolled or Forged QQ-A-367H  
AMS 4128 6061 T451 Bar - Rolled or Forged QQ-A-225/8  
AMS 4129 6061 T651 Superseded by AMS 4117  
AMS 4130 2025 T6 Die Forgings QQ-A-367  
AMS 4131 7075 T74 Forgings MIL-A-22771  
AMS 4132 2618 T61 Die & Hand Forgings  
AMS 4133 2014 T6 Forgings QQ-A-367 MIL-A-21180  
AMS 4134 2014 T4 Die Forgings QQ-A-367 2014  
AMS 4135 2104 T6 Superseded by AMS 4133  
AMS 4138 7079 T6 Forgings Non-current  
AMS 4139 7075 T6 Forgings Non-current  
AMS 4140 2018 T61 Die Forgings QQ-A-367  
AMS 4141 7075 T73 Die Forgings QQ-A-367  
AMS 4143 2219 T6 Forgings MIL-A-22771 2219T6  
AMS 4144 2219 T852/T851 Hand Forgings QQ-A-367 MIL-A-22771  
AMS 4145 4032 T6 Forgings QQ-A-367 4032  
AMS 4146 6061 T4 Forgings QQ-A-367  
AMS 4147 7075 T7352 Forgings QQ-A-367 MIL-A-22771  
AMS 4148 7175 T6 Die Forgings  
AMS 4149 7175 T74 Forgings MIL-A-22771 7175T74  
AMS 4150 6061 T6 Extrusion & Rings  
AMS 4152 2024 T3 Extrusion QQ-A-200/3  
AMS 4153 2014 T6 Extrusion QQ-A-200/2  
AMS 4154 7075 T6 Extrusion QQ-A-200/11  
AMS 4155 6062 T6 Superseded by AMS 4150  
AMS 4156 6063 T6 Extrusion QQ-A-200/9  
AMS 4157 7049 T73511 Extrusion  
AMS 4159 7049 T76511 Extrusion  
AMS 4160 6061 T0 Extrusion ASTM B221  
AMS 4161 6061 T4 Extrusion ASTM B221  
AMS 4162 2219 T8511 Extrusion ASTM B221  
AMS 4163 2219 T3511 Extrusion

AMS 4164 2024 T3510 Extrusion QQ-A-200/3 T3510  
AMS 4165 2024 T3511 Extrusion QQ-A-200/3 T3511  
AMS 4166 7075 T73 Extrusion QQ-A-200/11 T73  
AMS 4167 7075 T73511 Extrusion QQ-A-200/11 T73511  
AMS 4168 7075 T6511 Extrusion - Not straightened QQ-A-200/11  
AMS 4169 7075 T6511 Extrusion - Straightened QQ-A-200/11 T  
AMS 4172 6061 T4511 Extrusion ASTM B221  
AMS 4173 6061 T6511 Extrusion QQ-A-200/8F  
AMS 4174 7075 T73 Flash Welded Rings  
AMS 4175 5052 Honeycomb Core Use AMS 4348  
AMS 4179 7175 T7452 Forgings MIL-A-2271 7175  
AMS 4180 1100 H18 Wire MIL-W-6712 Type II  
AMS 4181 4008 Welding Wire AWS A5.10 Class RA356.0  
AMS 4182 5056 T0 Wire QQ-A-430 5056T0  
AMS 4184 4145 Filler Metal Aluminium Brazing QQ-B-655 Class FS-BA1 Si3  
AMS 4185 4047 Filler Metal Aluminium Brazing QQ-B-655 Class FS-BA1 Si4  
AMS 4186 7075 – Temper F Bar, Rod & Wire - Rolled or Cold Finish  
AMS 4187 7075 T0 Bar, Rod & Wire - Rolled or Cold Finish QQ-A-225/9  
AMS 4189 4643 Welding Wire AWS 5.10. ER4643  
AMS 4190 4043 Welding Wire AWS 5.10. ER4043  
AMS 4191 2319 Welding Wire AWS 5.10. ER2319  
AMS 4193 2024 T861 Sheet & Plate QQ-A-250/4  
AMS 4194 2024 T361 AlClad Sheet & Plate QQ-A-250/5  
AMS 4195 2024 T861 AlClad Sheet & Plate QQ-A-250/5  
AMS 4200 7049 T7351 Plate  
AMS 4201 7050 T7651 Plate MIL-C-7438  
AMS 4202 7475 T7351 Plate  
AMS 4203 7010 T7351 Plate  
AMS 4204 7010 T7651 Plate  
AMS 4205 7010 T3651/T7451 Plate  
AMS 4207 7475 T61 Sheet AlClad  
AMS 4208 2004F Sheet



**REFERANS® METAL**



*Referans Metal,  
Uzayda Malzemesi Olan Bir Firmadır.*



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- AMS 4209 2004F Sheet AlClad
- AMS 4216 6013T6 Sheet
- AMS 4221 2124 T8151 Plate
- AMS 4232 2090 T86 Extrusion
- AMS 4243 7050 T76 Sheet AlClad
- AMS 4251 2090 T83 Sheet
- AMS 4252 7150 T7751 Plate
- AMS 4255 No.21 Brazing Sheet
- AMS 4256 No.22 Brazing Sheet
- AMS 4259 8090 T6 Sheet
- AMS 4270 2024 T3 Sheet AlClad
- AMS 4303 2090 T81 Plate
- AMS 4306 7150 T6151 Plate
- AMS 4307 7150 T61511 Extrusion
- AMS 4308 8009 H112 Sheet
- AMS 4309 8009 H112 Extrusion
- AMS 4318 4032 T86 Bar and Rod Rolled or Cold Finish
- AMS 4319 4032 T651 Bar and Rod Rolled or Cold Finish
- AMS 4339 2024 T851 Bar and Rod Rolled or Cold Finish
- QQ-A-225/6
- AMS 4340 7050 T76511 Extrusion
- AMS 4341 7050 T73511 Extrusion
- AMS 4342 7050 T74511 Extrusion
- AMS 4343 7149 T73511 Extrusion
- AMS 4344 7175 T73511 Extrusion
- AMS 4345 7150 T77511 Extrusion
- AMS 4347 6013 T4 Sheet
- AMS 4348 5052 Core Honeycomb
- AMS 4349 5056 Core Honeycomb

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