

**This page is mainly introduced the AMS AM350 Datasheet, including chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of AMS AM350,such as it is commonly used in bars, sheet,plates, steel coils, steel pipes,forged and other materials application.**

## Datasheet for Steel Grades Specialsteel AMS AM350

| AMS AM350 Standard Number: |                        |   |
|----------------------------|------------------------|---|
| ITEM                       | Standard Number        | Descriptions  |
| 1                          | SAE AMS 5745F (2008)   | Steel, Corrosion and Heat-Resistant, Bars and Forgings 16.5Cr - 4.5Ni - 2.9Mo - 0.10N Equalized and Over-Tempered   |
| 2                          | SAE AMS 5554F (2011)   | Steel, Corrosion and Heat-Resistant, Seamless Tubing 16.5Cr - 4.5Ni - 2.9Mo - 0.10N Annealed  |
| 3                          | SAE AMS 5548P (2007)   | Steel, Corrosion and Heat-Resistant, Sheet and Strip 16.5Cr - 4.5Ni - 2.9Mo - 0.10N 1850 to 1975°F (1010 to 1079°C) Annealed  |
| 4                          | SAE AMS 5546D (1990)   | Steel Sheet and Strip, Corrosion and Moderate Heat Resistant 16.5Cr - 4.5Ni - 2.9Mo - 0.10N Cold Rolled, Tempered   |
| 5                          | SAE AMS S 8840A (1999) | Steel Sheet and Strip, Corrosion-Resistant, Precipitation Hardening (AM350 and AM355), Premium Quality Composition AM350, Annealed Composition AM355, CRT 150/180/120 |
| 6                          | SAE J 467B (1968)      | Special Purpose Alloys  |

| AMS AM350 Chemical composition(mass fraction)(wt.%) |    |         |    |    |         |    |    |    |       |
|---|----|---------|----|----|---------|----|----|----|-------|
| Chemical  |    | Min.(%) |    |    | Max.(%) |    |    |    |       |
| C   |    | 0.0700  |    |    | 0.1100  |    |    |    |       |
| Mn  |    | 0.5000  |    |    | 1.2500  |    |    |    |       |
| P   |    |         |    |    | 0.0400  |    |    |    |       |
| S   |    |         |    |    | 0.0300  |    |    |    |       |
| Si  |    |         |    |    | 0.5000  |    |    |    |       |
| Ni  |    | 4.0000  |    |    | 5.0000  |    |    |    |       |
| Cr  |    | 16.0000 |    |    | 17.0000 |    |    |    |       |
| Mo  |    | 2.5000  |    |    | 3.2500  |    |    |    |       |
| N   |    | 0.0700  |    |    | 0.1300  |    |    |    |       |
| C   | Si | Mn      | P  | S  | Cr      | Ni | Mo | V  | Ta    |
| W   | N  | Cu      | Co | Pb | B       | Nb | Al | Ti | Other |

|  |  |  |  |  |  |  |  |  |  |
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Steel, Corrosion and Heat-Resistant, Bars and Forgings 16.5Cr - 4.5Ni - 2.9Mo - 0.10N Equalized and Over-Tempered

| AMS AM350 Physical Properties |         |                          |
|-------------------------------|---------|--------------------------|
| Tensile strength              | 115-234 | $\sigma_b$ /MPa          |
| Yield Strength                | 23      | $\sigma_{0.2} \geq$ /MPa |
| Elongation                    | 65      | $\delta_5 \geq$ (%)      |
| $\psi$                        | -       | $\psi \geq$ (%)          |
| Akv                           | -       | Akv $\geq$ /J            |
| HBS                           | 123-321 | -                        |
| HRC                           | 30      | -                        |

| AMS AM350 Mechanical Properties |         |                          |
|---------------------------------|---------|--------------------------|
| Tensile strength                | 231-231 | $\sigma_b$ /MPa          |
| Yield Strength                  | 154     | $\sigma_{0.2} \geq$ /MPa |
| Elongation                      | 56      | $\delta_5 \geq$ (%)      |
| $\psi$                          | -       | $\psi \geq$ (%)          |
| Akv                             | -       | Akv $\geq$ /J            |
| HBS                             | 235-268 | -                        |
| HRC                             | 30      | -                        |

| AMS AM350 Heat Treatment Regime |           |           |             |       |
|---------------------------------|-----------|-----------|-------------|-------|
| Annealing                       | Quenching | Tempering | Normalizing | Q & T |
| √                               | √         | √         | √           | √     |

| AMS AM350 Range of products |                                 |                   |   |   |
|-----------------------------|---------------------------------|-------------------|---|---|
| Product type                | Products                        | Dimension         | Processes                                   | Deliver Status  |
| Plates / Sheets             | Plates / Sheets                 | 0.08-200mm(T)*W*L | Forging, hot rolling and cold rolling       | Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting |
| Steel Bar                   | Round Bar, Flat Bar, Square Bar | Φ8-1200mm*L       | Forging, hot rolling and cold rolling, Cast | Black, Rough Turning, Shot Blasting,                          |

|               |  |                            |                                   |   |
|---------------|--|----------------------------|-----------------------------------|---|
| Coil / Strip  | Steel Coil /Steel Strip                  | 0.03-16.0x1200mm           | Cold-Rolled & Hot-Rolled          | Annealed, Solution and Aging, Q+T, ACID-WASHED, Shot Blasting |
| Pipes / Tubes | Seamless Pipes/Tubes, Welded Pipes/Tubes | OD:6-219mm x WT:0.5-20.0mm | Hot extrusion, Cold Drawn, Welded | Annealed, Solution and Aging, Q+T, ACID-WASHED                |

**We can produce Specialsteel the specifications follows:**