

This page is mainly introduced the F836 Class A4-80 S31600 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of F836 Class A4-80 S31600, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Specialsteel F836 Class A4-80 S31600

### F836 Class A4-80 S31600 Standard Number:

| ITEM | Standard Number | Descriptions  |
|------|-----------------|---|
| 1    | F 836M (2002)   | Standard Specification for Style 1 Stainless Steel Metric Nuts (Metric) |

### F836 Class A4-80 S31600 Chemical composition (mass fraction) (wt.%)

| Chemical |    | Min.(%) |    | Max.(%) |    |    |    |    |       |
|----------|----|---------|----|---------|----|----|----|----|-------|
| C        |    |         |    | 0.08    |    |    |    |    |       |
| Si       |    |         |    | 1.00    |    |    |    |    |       |
| Mn       |    |         |    | 2.00    |    |    |    |    |       |
| P        |    |         |    | 0.045   |    |    |    |    |       |
| S        |    |         |    | 0.03    |    |    |    |    |       |
| Cr       |    | 16.0    |    | 18.0    |    |    |    |    |       |
| Ni       |    | 10.0    |    | 14.0    |    |    |    |    |       |
| Mo       |    | 2.00    |    | 3.00    |    |    |    |    |       |
| C        | Si | Mn      | P  | S       | Cr | Ni | Mo | V  | Ta    |
| W        | N  | Cu      | Co | Pb      | B  | Nb | Al | Ti | Other |
|          |    |         |    |         |    |    |    |    |       |

### Standard Specification for Style 1 Stainless Steel Metric Nuts (Metric)

### F836 Class A4-80 S31600 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      | -                   |

| F836 Class A4-80 S31600 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      | -                        |

| F836 Class A4-80 S31600 Heat Treatment Regime |           |           |             |       |
|---|-----------|-----------|-------------|-------|
| Annealing                                     | Quenching | Tempering | Normalizing | Q & T |
| √   | √         | √         | √           | √     |

| F836 Class A4-80 S31600 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          | $\Phi 8$ -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:**