**This page is mainly introduced the HFM 316S51 chemical information,mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of HFM 316S51,such as it is commonly used in bars, sheet,plates, steel coils, steel pipes,forged and other materials application.**

# Data Table for Grades Stainless Steels HFM 316S51

## HFM 316S51 Standard Number:

| ITEM | Standard Number | Descriptions |
|---|---|---|
| 1 | BS 3605-1 | Austenitic stainless steel pipes and tubes for pressure purposes. Specification for seamless tubes |

## HFM 316S51 Chemical composition(mass fraction)(wt.%)

| Chemical | Min.(%) | Max.(%) |
|---|---|---|
| C | 0.04 | 0.10 |
| Si | | 1.00 |
| Mn | | 2.00 |
| P | | 0.04 |
| S | | 0.03 |
| Cr | 16.50 | 18.50 |
| Mo | 2.00 | 2.50 |
| Ni | 10.50 | 13.50 |

## HFM 316S51 Physical Properties

| | | |
|---|---|---|
| Tensile strength | 115-234 | σb/MPa |
| Yield Strength | 23 | σ 0.2 ≥/MPa |
| Elongation | 65 | δ5≥ (%) |
| ψ | - | ψ≥ (%) |
| Akv | - | Akv≥/J |
| HBS | 123-321 | - |
| HRC | 30 | - |

## HFM 316S51 Mechanical Properties

| | | |
|---|---|---|
| Tensile strength | 231-231 | σb/MPa |

| | | |
|---|---|---|
| Yield Strength | 154 | σ 0.2 ≥/MPa |
| Elongation | 56 | δ5≥(%) |
| ψ | - | ψ≥(%) |
| Akv | - | Akv≥/J |
| HBS | 235-268 | - |
| HRC | 30 | - |

## HFM 316S51 Heat Treatment Regime

| Annealing | Quenching | Tempering | Normalizing | Q & T |
|---|---|---|---|---|
| √ | √ | √ | √ | √ |

## HFM 316S51 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 Stainless Steels the specifications follows:**