

This page is mainly introduced the STS316LTPY Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of STS316LTPY, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Specialsteel STS316LTPY

### STS316LTPY Standard Number:

| ITEM | Standard Number | Descriptions                                |
|------|-----------------|---|
| 1    | D 3588 (2009)   | Large diameter welded stainless steel pipes |

### STS316LTPY Chemical composition(mass fraction)(wt.%)

| Chemical |    | Min.(%) |    |    |    | Max.(%) |    |    |       |
|----------|----|---------|----|----|----|---------|----|----|-------|
| C        |    |         |    |    |    | 0.03    |    |    |       |
| Si       |    |         |    |    |    | 1.00    |    |    |       |
| Mn       |    |         |    |    |    | 2.00    |    |    |       |
| P        |    |         |    |    |    | 0.045   |    |    |       |
| S        |    |         |    |    |    | 0.030   |    |    |       |
| Cr       |    | 16.00   |    |    |    | 18.00   |    |    |       |
| Ni       |    | 12.00   |    |    |    | 15.00   |    |    |       |
| Mo       |    | 2.00    |    |    |    | 3.00    |    |    |       |
| N        |    |         |    |    |    |         |    |    |       |
| C        | Si | Mn      | P  | S  | Cr | Ni      | Mo | V  | Ta    |
| W        | N  | Cu      | Co | Pb | B  | Nb      | Al | Ti | Other |
|          |    |         |    |    |    |         |    |    |       |

Large diameter welded stainless steel pipes

### STS316LTPY 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      | -                        |

### STS316LTPY 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      | -                        |

### STS316LTPY Heat Treatment Regime

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

### STS316LTPY 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, | $\Phi 8$ -1200mm*L | Forging, hot rolling and              | Black, Rough Turning,   |

|               |  |                            |                                   |   |
|---------------|--|----------------------------|-----------------------------------|---|
|               | Square Bar                               |                            | cold rolling, Cast                | 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:**