

This page is mainly introduced the Stellite SF20 Datasheet, including chemical information, mechanical properties, physical properties, mechanical properties, heat treatment, and Micro structure, etc. It also contains the use of Stellite SF20, such as it is commonly used in bars, sheet, plates, steel coils, steel pipes, forged and other materials application.

## Datasheet for Steel Grades Tool Steel And Hard Alloy Stellite SF20

| Stellite SF20 Standard Number: |                 |              |
|--------------------------------|-----------------|--------------|
| ITEM                           | Standard Number | Descriptions |

| Stellite SF20 Chemical composition (mass fraction) (wt.%) |     |    |           |         |      |      |         |    |       |
|---|-----|----|-----------|---------|------|------|---------|----|-------|
| Chemical  |     |    |           | Min.(%) |      |      | Max.(%) |    |       |
| C   | Si  | Mn | P         | S       | Cr   | Ni   | Mo      | V  | Ta    |
| 1.5   | 3.0 |    |           |         | 19.0 | 13.0 |         |    |       |
| W   | N   | Cu | Co        | Pb      | B    | Nb   | Al      | Ti | Other |
| 15.0  |     |    | remaining |         | 3.0  |      |         |    |       |

### Stellite SF20

| Stellite SF20 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      | -                        |

| Stellite SF20 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      | -                    |

### Stellite SF20 Heat Treatment Regime

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

### Stellite SF20 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 Tool Steel And Hard Alloy the specifications follows:**