

## 1.4542 17-4PH

| X5CrNiCuNb16-4 | %C   | %Si  | %Mn  | %P    | %S    | %Cr  | %Cu | %Mo  | %Nb  | %Ni |
|----------------|------|------|------|-------|-------|------|-----|------|------|-----|
|                | -    | -    | -    | -     | -     | 15.0 | 3.0 | -    | 5*C  | 3.0 |
|                | 0.07 | 0.70 | 1.50 | 0.040 | 0.030 | 17.0 | 5.0 | 0.60 | 0.45 | 5.0 |

### STEEL PROPERTIES

1.4542 17-4 PH (precipitation hardening) stainless steel, is a versatile and high-strength stainless steel with excellent corrosion resistance. It is often used in applications that require a combination of good mechanical properties and corrosion resistance.

### EQUIVALENT GRADES

|            |             |                |
|------------|-------------|----------------|
| EN 10088-3 | 1.4542      | X5CrNiCuNb16-4 |
| AFNOR      | Z6CNU17.04  |                |
| GOST       | -           |                |
| AISI       | 630/17-4 PH |                |
| JIS        | SUS630      |                |

### APPLICATIONS

1.4542 17-4PH is used in a variety of applications, including aerospace components, high-strength structural parts, valves, and other components requiring a combination of high strength and corrosion resistance. It is also used in the medical and oil and gas industries.

### HEAT TREATMENT

1.4542 17-4PH is supplied in annealed +A, and +P conditions.

**Mechanical Values for 1.4542 17-4PH at room temperature in EN 10088-3: 2014 in conditions 1C, 1E, 1D, 1X, 1G, 2D**

| Diameter<br>(mm) | Heat<br>Treatment<br>Condition | Hardness<br>HB max. | 0.2%<br>Proof<br>strength<br>min. | Tensile<br>Strength<br>R <sub>m</sub> Mpa | Elongation<br>after<br>fracture A<br>% Min. |       | Impact<br>Energy<br>(ISO-V) KV<br>J Min. |       |
|------------------|--------------------------------|---------------------|-----------------------------------|---|---|-------|--|-------|
|                  |                                |                     |                                   |   | (long)                                      | (tr.) | (long)                                   | (tr.) |
| -                | +AT                            | 360                 | -                                 | Max 1200                                  | -   | -     | -  | -     |
| <= 100           | +P800                          | -                   | 520                               | 800 to 950                                | 18  | -     | 75                                       | -     |

## 1.4542 17-4PH

**Mechanical Values for 1.4542 17-4PH Bright Bars at room temperature in EN 10088-3: 2014 in conditions 2H, 2B, 2G, 2P**

| Diameter<br>(mm) | Annealed                  |           | Heat<br>Treatment<br>Condition | 0.2%<br>Proof<br>strength<br>min. | Tensile<br>Strength<br>R <sub>m</sub> Mpa | A5 % Min<br>Elongation |       | Impact<br>Energy<br>(ISO-V) KV<br>J Min. |       |
|------------------|---------------------------|-----------|--------------------------------|-----------------------------------|---|------------------------|-------|--|-------|
|                  | R <sub>m</sub> Mpa<br>Max | HB<br>Max |                                |                                   |   | (long)                 | (tr.) | (long)                                   | (tr.) |
| ≤10              | 1200                      | 360       | +P800                          | 600                               | 900 to 1100                               | 10                     | -     | -  | -     |
| 10<t≤16          | 1200                      | 360       | +P800                          | 600                               | 900 to 1100                               | 10                     | -     | -  | -     |
| 16<t≤40          | 1200                      | 360       | +P800                          | 520                               | 800 to 1050                               | 12                     | -     | 75                                       | -     |
| 40<t≤63          | 1200                      | 360       | +P800                          | 520                               | 800 to 1000                               | 18                     | -     | 75                                       | -     |
| 63<t≤160         | 1200                      | 360       | +P800                          | 520                               | 800 to 950                                | 18                     | -     | 75                                       | -     |

### PRODUCTS OFFERED

- PEELED BARS
- BRIGHT BARS
- HEXAGONS
- SQUARES
- FLAT BARS
- WIRES