

## MATERIAL DATA SHEET · AUSTENITIC STAINLESS STEEL

## ASTM A351 CF8 — Chemical Composition &amp; Mechanical Properties

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ASTM A351 CF8 is a austenitic stainless steel grade for austenitic steel castings (UNS J92600, EN / W.Nr 1.4308). It is also known as Cast 304. This sheet summarises its chemical composition limits, minimum mechanical properties, heat treatment and typical service. Teshi Group manufactures valves with bodies in this grade.

## At a glance

|                   |                            |
|-------------------|----------------------------|
| Material family   | Austenitic stainless steel |
| Product form      | Austenitic steel castings  |
| UNS               | J92600                     |
| EN / W.Nr         | 1.4308                     |
| Also known as     | Cast 304                   |
| PREN (min values) | 18.0                       |

## Mechanical properties

|                                    |               |
|------------------------------------|---------------|
| Tensile strength, min              | 485 MPa       |
| Yield strength (0.2 % offset), min | 205 MPa       |
| Elongation, min                    | 35 %          |
| Hardness                           | Not specified |

## Chemical composition (weight %)

|                 |                |                |                |                |
|-----------------|----------------|----------------|----------------|----------------|
| C<br>0.08 max   | Mn<br>1.50 max | P<br>0.040 max | S<br>0.040 max | Si<br>2.00 max |
| Cr<br>18.0–21.0 | Ni<br>8.0–11.0 | Mo<br>0.50 max |                |                |

Single values are maximums unless shown as a range or "min".

## Heat treatment

Solution treated 1040 °C min, quenched

## Typical service

Cast equivalent of 304 — valve bodies, pump casings

## International equivalents (nearest)

|                            |                                 |
|----------------------------|---------------------------------|
| USA — ASTM / ASME          | ASTM A351 CF8 · ASME SA-351 CF8 |
| USA — UNS                  | J92600                          |
| Europe — EN designation    | GX5CrNi19-10 (EN 10213)         |
| Europe — W.Nr              | 1.4308                          |
| Japan — JIS                | SCS13A (JIS G5121)              |
| China — GB / NB            | CF8 / ZG08Cr18Ni9 (GB/T 12230)  |
| China — old GB designation | ZG0Cr18Ni9                      |
| UK — BS (withdrawn)        | BS 3100 304C15                  |

**Teshi Group** — OEM manufacturer of flanges, pipe fittings, fasteners, valves and fabrications; stockist and supplier of pipes, plates and structural steel. ISO 9001:2015 · IBR approved · since 1971. Enquiries: info@teshigroup.com · sales@teshigroup.com · +91 78900 09110

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