

Tubes in Material Grade 1.4547/ 254 SMO from Stock

The characteristics of Material Grade 254 SMO are as follows:

- Excellent resistance to pitting and crevice corrosion
- High resistance to general corrosion
- High resistance to stress corrosion cracking
- Higher strength than conventional austenitic stainless steels
- Good weldability

Chemical analysis
(heat analysis) of austenitic-ferritic steel grades, values in %

| Short Name | Material No. | C max. | Si | Mn | P | S | N | Cr | Cu | Mo | Ni | Bal. |
|----------------------|--------------|--------|--------|--------|-------|-------|------|------|-----|-----|------|------|
| X1CrNiMo-CuN 20-18-7 | 1.4547 | 0.020 | ≤ 0,80 | ≤ 1.00 | 0,030 | 0,010 | 0,18 | 19,5 | 0,5 | 6,0 | 17,5 | - |
| | | | | | | | - | - | - | - | - | - |
| | | | | | | | 0,25 | 20,5 | 1,0 | 7,0 | 18,5 | - |

Mechanical properties for wall thicknesses up to 30 mm in solution-annealed condition (+ OT) and details of resistance to intercrystalline corrosion

| Short Name | Material No. | Proof strength Rp 0,2 min. MPa | tensile strength Rm MPa | elongation A % min. | | impact strength KV J min. | | | normal heat treatment condition | | |
|----------------------|--------------|---|-----------------------------------|------------------------------|----|------------------------------------|-----|-----------|---------------------------------|-------------------------------------|-----------|
| | | | | l | t | at RT | | at -40° C | | solution annealed temperature °C | cooling |
| | | | | | | l | t | l | t | | |
| X1 CrNiMoCuN 20-18-7 | 1.4547 | 300 | 650 | 40 | 40 | 100 | 100 | | | 1140 - 1200 | Air/Water |

These alloys have been developed for use in halide containing environments such as brackish water, seawater, hydrochloric acid and sulphuric acid. The increased levels of molybdenum combined with chromium and nitrogen provide levels of pitting and crevice corrosion resistance more typically associated with higher alloy 625 (UNS NO6625).

Dimensions available from stock

| | | | |
|-------|---|------|----|
| 3,00 | x | 1,00 | mm |
| 6,00 | x | 1,00 | mm |
| 6,00 | x | 1,50 | mm |
| 8,00 | x | 1,00 | mm |
| 8,00 | x | 1,50 | mm |
| 10,00 | x | 1,00 | mm |
| 10,00 | x | 1,50 | mm |
| 10,00 | x | 2,00 | mm |
| 12,00 | x | 1,00 | mm |
| 12,00 | x | 1,50 | mm |
| 12,00 | x | 2,00 | mm |
| 15,00 | x | 1,50 | mm |
| 15,00 | x | 2,00 | mm |
| 16,00 | x | 1,50 | mm |
| 16,00 | x | 2,00 | mm |
| 18,00 | x | 1,50 | mm |
| 18,00 | x | 2,00 | mm |
| 22,00 | x | 2,00 | mm |
| 25,00 | x | 1,50 | mm |
| 25,00 | x | 2,00 | mm |
| 25,00 | x | 2,50 | mm |
| 25,00 | x | 3,00 | mm |
| 28,00 | x | 2,00 | mm |
| 38,00 | x | 4,00 | mm |

| | | | |
|------|---|--------|-------------------|
| 1/8" | x | 0,028" | (3,18 x 0,71 mm) |
| 1/4" | x | 0,035" | (6,35 x 0,89 mm) |
| 1/4" | x | 0,049" | (6,35 x 1,24 mm) |
| 1/4" | x | 0,065" | (6,35 x 1,65 mm) |
| 3/8" | x | 0,065" | (9,53 x 1,65 mm) |
| 1/2" | x | 0,035" | (12,70 x 0,89 mm) |
| 1/2" | x | 0,049" | (12,70 x 1,24 mm) |
| 1/2" | x | 0,065" | (12,70 x 1,65 mm) |
| 1/2" | x | 0,109" | (12,70 x 2,77 mm) |
| 3/4" | x | 0,049" | (19,05 x 1,24 mm) |
| 3/4" | x | 0,065" | (19,05 x 1,65 mm) |
| 3/4" | x | 0,109" | (19,05 x 2,77 mm) |
| 1" | x | 0,049" | (25,4 x 1,24 mm) |
| 1" | x | 0,065" | (25,4 x 1,65 mm) |
| 1" | x | 0,083" | (25,4 x 2,11 mm) |
| 1" | x | 0,109" | (25,4 x 2,77 mm) |

The standard of our stock material applies to:

EN 10216-5/11.2004 - TC 1 - ASME Section II - Part A - Edition 2010 - 2011a Add.-SA789//ASTM A789/ 10a - Norsok Standard M650/M630, Material Data Sheet D48 Rev. 4, NACE MR0175/ISO15156-3/2003

Tolerances:

EN ISO 1127 D4/T3 ASTM A789/ASME SA789



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