

Dura 4024

General characteristics

Martensitic grade with slightly increased hardenability (comp. 1.4006). Corrosion resistant in water and steam. For mechanical engineering applications and surgical instruments.

Typical applications

- Mechanical engineering applications
- Surgical instruments

Products & dimensions

Cold rolled products, available dimensions (mm)

| Surface finish | | Coil / Strip | | Plate / Sheet | |
|----------------|-------------------------------------------------|--------------|---------|---------------|----------|
| | | Thickness | Width | Thickness | Width |
| 2B | Cold rolled, heat treated, pickled, skin passed | 0.50-3.50 | 30-1250 | 0.50-3.50 | 350-1250 |
| 2BB | Bright-pickled | 0.50-3.50 | 30-1350 | 0.50-3.50 | 600-1300 |
| 2C | Cold rolled, heat treated | 0.80-3.50 | 30-1350 | | |
| 2D | Cold rolled, heat treated, pickled | 0.50-3.50 | 30-1350 | 0.50-3.50 | 600-1300 |
| 2E | Cold rolled, heat treated, mech. desc. pickled | 0.50-3.50 | 30-1350 | 0.50-3.50 | 600-1300 |
| 2G | Ground | 0.50-3.00 | 30-1350 | 0.50-3.00 | 600-1300 |
| 2H | Work hardened | 0.50-3.00 | 30-1350 | 0.50-3.00 | 600-1350 |
| 2J | Brushed or dull polished | 0.50-3.00 | 30-1350 | 0.50-3.00 | 600-1350 |
| 2R | Cold rolled, bright annealed | 0.05-1.50 | 3-649 | | |

Continous hot rolled products, available dimensions (mm)

| Surface finish | | Coil / Strip | | Plate / Sheet | |
|----------------|----------------------------------------|--------------|----------|---------------|----------|
| | | Thickness | Width | Thickness | Width |
| 1C | Hot rolled, heat treated, not descaled | 2.00-8.00 | 50-1530 | | |
| 1D | Hot rolled, heat treated, pickled | 5.00-5.50 | 30-1250 | 5.00-5.50 | 350-1250 |
| 1G | Ground | 2.00-3.00 | 750-1350 | 2.00-3.00 | 750-1350 |
| 1U | Black hot rolled | 2.00-8.00 | 50-1530 | | |

Chemical composition

| | C | Mn | Cr | Ni | Mo | N | Other |
|----------------|-------------|-------|-------------|----|----|---|-------|
| Typical | 0.16 | | 13.2 | | | | |
| EN 10088-2 | 0.12-0.17 | ≤1.00 | 12.0-14.0 | | | | |

Corrosion resistance

| Pitting corrosion resistance | | Crevice corrosion resistance |
|------------------------------|-----|------------------------------|
| PRE | CPT | CCT |
| 13 | | |

PRE Pitting Resistant Equivalent calculated using the formula: $PRE = \%Cr + 3.3 \times \%Mo + 16 \times \%N$

CPT Corrosion Pitting Temperature as measured in the Avesta Cell (ASTM G 150), in a 1M NaCl solution (35,000 ppm or mg/l chloride ions).

CCT Critical Crevice Corrosion Temperature is the critical crevice corrosion temperature which is obtained by laboratory tests according to ASTM G 48 Method F

Mechanical properties

| Cold rolled coil and sheet | R _{p0.2} MPa | R _{p1.0} MPa | R _m MPa | Elongation ¹⁾ % | Impact strength J | Rockwell | HB | HV |
|----------------------------|--------------------------|--------------------------|-----------------------|-------------------------------|----------------------|----------|----|----|
| EN 10088-2 | | | ≤ 650 | ≥ 20 | | | | |

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|---------------------------|--------------------------|--------------------------|-----------------------|-------------------------------|----------------------|----------|----|----|
| EN 10088-2 | | | ≤ 650 | ≥ 20 | | | | |

¹⁾Elongation according to EN standard:

A₈₀ for thickness below 3 mm.

A for thickness = 3 mm.

Elongation according to ASTM standard A₂ or A₅₀.

Physical properties

| Density | Modulus of elasticity | Thermal exp. at 100 °C | Thermal conductivity | Thermal capacity | Electrical resistance | Magnetizable |
|--------------------|--------------------------|---------------------------|-------------------------|---------------------|--------------------------|--------------|
| kg/dm ³ | GPa | 10 ⁻⁶ /°C | W/m°C | J/kg°C | μΩm | |
| 7.7 | 216 | 10,5 | 30 | 460 | 0.60 | Yes |

Fabrication

Standards & approvals

| Standard | Designation |
|----------|-------------|
|----------|-------------|

Contacts & Enquiries

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