

# 254 SFER

| For welding steels such as Outokumpu | EN     | ASTM   | BS | NF              | SS |
|--------------------------------------|--------|--------|----|-----------------|----|
| 4466                                 | 1.4466 | S31050 | –  | Z2 CND 25-22 Az | –  |

## Standard designations

EN 1600 E 25 22 2 N L R

## Characteristics

AVESTA 254 SFER is a fully austenitic Mn and N-alloyed Cr-Ni-Mo electrode similar to AWS E310MoL. The electrode is designed for welding ASTM S31050 and similar types of high corrosion resistant steels for use in applications producing for example synthetic fertilisers, nitrophosphates, ammonium nitrate and nitric acid.

## Welding data

| DC+ | Diam. mm | Current, A |
|-----|----------|------------|
|     | 2.5      | 50 – 75    |
|     | 3.25     | 70 – 110   |
|     | 4.0      | 100 – 150  |

## Weld deposit data

Metal recovery approx. 103%.

## Typical analysis % (All weld metal)

| C       | Si  | Mn   | Cr   | Ni   | Mo  | N    |
|---------|-----|------|------|------|-----|------|
| 0.03    | 0.4 | 2.6  | 25.0 | 21.0 | 2.5 | 0.14 |
| Ferrite |     | 0 FN |      |      |     |      |

## Mechanical properties

|                           | Typical values (IIW)  | Min. values EN 1600   |
|---------------------------|-----------------------|-----------------------|
| Yield strength $R_{p0.2}$ | 440 N/mm <sup>2</sup> | 320 N/mm <sup>2</sup> |
| Tensile strength $R_m$    | 660 N/mm <sup>2</sup> | 510 N/mm <sup>2</sup> |
| Elongation $A_5$          | 32 %                  | 25 %                  |
| Impact strength KV +20°C  | 55 J                  |                       |
| Hardness approx.          | 200 Brinell           |                       |

**Interpass temperature:** Max. 100°C.

**Heat input:** Max. 1.5 kJ/mm.

**Heat treatment:** Generally none (in special cases quench annealing at 1050°C).

**Structure:** Fully austenitic.

**Scaling temperature:** Approx. 1000°C (air).

**Corrosion resistance:** Excellent resistance in strongly oxidising and slightly reducing environments. High resistance to intergranular, selective, pitting and stress corrosion.

## Approvals

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## Welding positions

