253 MA

For welding steels such as Outokumpu EN ASTM BS NF SS

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Standard designations
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Characteristics and welding directions
AVESTA 253 MA is designed for welding the high temperature steel Outokumpu 253 MA, used for example in furnaces, combustion chambers, burners etc. Both the steel and the consumable provide excellent properties at temperatures 850 – 1100°C.

MIG welding of 253 MA is best performed using spray arc or pulsed arc. 253 MA has a tendency to give a thick oxide layer during welding and hot rolling. Black plates and previous weld beads should be carefully brushed or ground prior to welding.

Shielding gas
1. Ar + 30% He + 2.5% CO₂.
2. Ar + 2% O₂ / Ar + 2% CO₂.

MIG welding is best performed using pulsed arc with a shielding gas of pure argon or Ar + 30% He + 2.5% CO₂. The addition of helium (He), will increase the energy of the arc. Gas flow rate 12 – 16 l/min.

Interpass temperature: Max. 150°C.

Heat input: Max. 1.5 kJ/mm.

Heat treatment: Generally none.

Structure: Austenite with 3 – 10% ferrite.

Scaling temperature: Approx. 1150°C (air).

Corrosion resistance: Excellent resistance to high temperature corrosion. Not intended for applications exposed to wet corrosion.

Approvals
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