

# Solid Wire Electrode for MIG/MAG Welding

## BA-MIG 410

**Classification:** EN ISO 14343-A: **G 13**  
SFA-5.9: **ER410**

### Main Application:

BA-MIG 410 is a solid wire electrode for GMAW, suitable for welding 13% chromium steels, overlay carbon steels for improved corrosion, erosion and abrasion resistance. Service temperature up to +450 °C.

Pre-heat and inter-pass temperature shall be  $\geq 200^{\circ}\text{C}$ . Main used for surfacing steel mill rolls, furnace and burner parts, turbine parts.

### Typical analysis and chemical composition acc. to EN ISO 14343-A and AWS A5.9:

(Weight Percent)

| Wire electrode                 | C    | Si  | Mn  | Mo   | Ni  | Cr            | P     | S     | Cu total |
|--------------------------------|------|-----|-----|------|-----|---------------|-------|-------|----------|
| Typical analysis<br>BA-MIG 410 | 0.10 | 0.4 | 0.4 | 0.2  | 0.1 | 13.0          | 0.015 | 0.015 | 0.2      |
| G 13 acc. to ISO 14343-A       | 0.15 | 1.0 | 1.0 | 0.3  | 0.3 | 12.0-<br>15.0 | 0.03  | 0.02  | 0.3      |
| ER410 acc. to AWS A5.9         | 0.12 | 0.5 | 0.6 | 0.75 | 0.6 | 11.5-<br>13.5 | 0.03  | 0.03  | 0.75     |

### All - Weld Metal Mechanical Properties / Welding Data:

|  |                    |
|--|--------------------|
| Heat Treatment                               | PWHT: 750°C x 1h   |
| Yield Strength Re, N/mm <sup>2</sup> (ksi)   | $\geq 350$ (51)    |
| Tensile Strength Rm, N/mm <sup>2</sup> (ksi) | $\geq 450$ (65)    |
| Elongation A5 [%]                            | $\geq 17$          |
| Impact Energy ISO-V, J (ft lbs)              | +20°C: 47 (34)     |
| Current/polarity                             | DC +               |
| Shielding Gas                                | ISO 14175: M12/M13 |

### Base Materials:

1.4000 (X6Cr13); 1.4006 (X12Cr13), AISI 410

### Package Forms:

Spools BS300/15 kg as standard package form for GMAW wire electrodes.

### Diameter:

1,0 – 1,6 mm. Sizes and tolerances acc. to ISO 544 and AWS A5.9.

### Wire Electrode Surface:

Smooth finish free from surface defects and foreign matter.