

MIG Wires  
AWS ER70S-G  
**KC-27**

AWS ER70S-6  
**KC-28C**

Mild Steel  
AWS ER70S-2  
**KC-70S2**

Typical Applications

Butt and Fillet welding of vehicles, steel frames, bridges, machinery and shipbuilding.

Butt and Fillet welding of vehicles, building, ships, machinery and bridges in all positions.

Butt and Fillet welding of vehicles, cars, ships, machinery and bridges.

Characteristics Of Usage

1. Stable arc, low spatter loss and less slag formation.
2. Deposited weld metal has excellent notch toughness.
3. Excellent bead appearance when used with argon Co<sub>2</sub> gas shielding.

1. Good arc characteristics in all positions due to triple deoxidizing alloy content.
2. Surface tension is conducive to all position welding especially in open root pipe or plate welding.

1. Arc is very stable and can be used for welding steels which have a rusty or scaling surface oxide(Al, Ti, Zr).
2. Excellent for all position welding, particularly in pipe welding root passes in Mig or Tig . Weld bead wets out with good surface tension to support open root welds.

Weld Metal Composition

|            |        |
|------------|--------|
| Carbon     | 0.07 % |
| Silicon    | 0.62 % |
| Manganese  | 1.18 % |
| Phosphorus | 0.014% |
| Sulphur    | 0.010% |

|            |         |
|------------|---------|
| Carbon     | 0.07 %  |
| Silicon    | 0.86 %  |
| Manganese  | 1.53 %  |
| Phosphorus | 0.012 % |
| Sulphur    | 0.007 % |

|           |        |
|-----------|--------|
| Carbon    | 0.07 % |
| Silicon   | 0.54 % |
| Manganese | 1.18 % |
| Titanium  | 0.07 % |
| Aluminum  | 0.08 % |
| Zirconium | 0.05 % |

Mechanical Properties

|                  |                               |
|------------------|-------------------------------|
| <b>SG</b>        | <b>Ar+20 % CO<sub>2</sub></b> |
| <b>Y-P (psi)</b> | 71,068                        |
| <b>T-S (psi)</b> | 81,221                        |
| <b>EI</b>        | 31 %                          |
| <b>V-notch</b>   | 118 ft/lb @ 0 °F              |

|                  |                       |                               |
|------------------|-----------------------|-------------------------------|
| <b>SG</b>        | <b>CO<sub>2</sub></b> | <b>Ar+20 % CO<sub>2</sub></b> |
| <b>Y-P (psi)</b> | 65,267                | 69,618                        |
| <b>T-S (psi)</b> | 79,771                | 84,122                        |
| <b>EI</b>        | 30 %                  | 28 %                          |
| <b>V-notch</b>   | 52 ft/lb @ -20 °F     | 52 ft/lb @ -20 °F             |

|                  |                       |                               |
|------------------|-----------------------|-------------------------------|
| <b>SG</b>        | <b>CO<sub>2</sub></b> | <b>Ar+20 % CO<sub>2</sub></b> |
| <b>Y-P (psi)</b> | 71,068                | 79,771                        |
| <b>T-S (psi)</b> | 79,771                | 88,473                        |
| <b>EI</b>        | 29 %                  | 26 %                          |
| <b>V-notch</b>   | 59 ft/lb @ -20 °F     | 37 ft/lb @ -20 °F             |

Available Sizes / Rec. Parameters

| Dia<br>in (mm) | Amp     |         |
|----------------|---------|---------|
|                | F       | V&OH    |
| .030 (0.8)     |         |         |
| .035 (0.9)     |         |         |
| .040 (1.0)     |         |         |
| .045 (1.2)     | 100-350 | 50-180  |
| .052 (1.4)     | 140-400 | 100-250 |
| 1/16 (1.6)     | 200-550 | 120-300 |

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|----------------|---------|---------|
|                | F       | V&OH    |
| .030 (0.8)     |         |         |
| .035 (0.9)     | 50-200  | 50-120  |
| .040 (1.0)     | 70-250  | 50-150  |
| .045 (1.2)     | 100-350 | 50-180  |
| .052 (1.4)     | 140-400 | 100-250 |
| 1/16 (1.6)     | 200-550 | 120-300 |

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Packaging

Detailed Packaging Information

All position with proper equipment and procedures.

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Welding Positions

Approved

ABS, DNV, NK, JIS

ABS, BV, CCS, CWB, DNV, GL, LR, KR, NK, TUV, JIS, KS

