

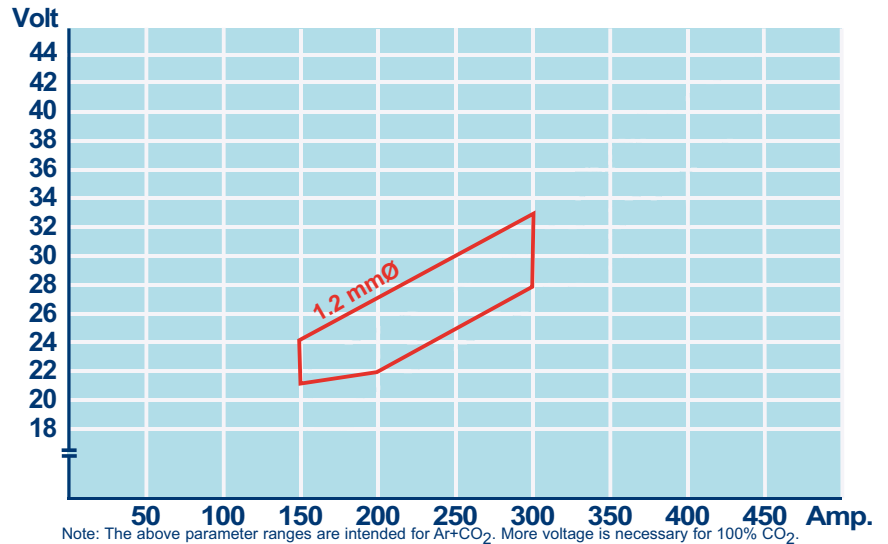
## Description and Application

DW-81B2 is a rutile based flux cored wire for welding of 1.25%Cr-0.5%Mo steels, such as ASTM A387 Gr.11&Gr.12.

DW-91B3 is a rutile based flux cored wire for welding of 2.25%Cr-1%Mo steels, such as ASTM A387 Gr.22.

These wires provide many good characteristics, low spatter loss, flat to slightly convex bead configuration, and a moderate volume of slag, which completely covers the weld bead and exhibits self-peeling slag detachability.

## Recommended Parameter Range, for flat position



## Chemical Analysis (wt.%)

|         |          | C         | Si    | Mn    | P      | S      | Cr        | Mo        | Shielding gas            |
|---------|----------|-----------|-------|-------|--------|--------|-----------|-----------|--------------------------|
| DW-81B2 | Example  | 0.05      | 0.61  | 0.60  | 0.008  | 0.013  | 1.29      | 0.51      | 80%Ar-20%CO <sub>2</sub> |
|         |          | 0.06      | 0.46  | 0.46  | 0.008  | 0.009  | 1.23      | 0.48      | 100%CO <sub>2</sub>      |
|         | Guaranty | 0.05-0.12 | ≤0.80 | ≤1.25 | ≤0.030 | ≤0.030 | 1.00-1.50 | 0.40-0.65 |                          |
| DW-91B3 | Example  | 0.06      | 0.43  | 0.82  | 0.008  | 0.010  | 2.25      | 0.97      | 80%Ar-20%CO <sub>2</sub> |
|         |          | 0.06      | 0.35  | 0.70  | 0.010  | 0.009  | 2.16      | 0.97      | 100%CO <sub>2</sub>      |
|         | Guaranty | 0.05-0.12 | ≤0.80 | ≤1.25 | ≤0.030 | ≤0.030 | 2.00-2.50 | 0.90-1.20 |                          |

## Mechanical Properties

|         |          | R <sub>e</sub> (N/mm <sup>2</sup> ) | R <sub>m</sub> (N/mm <sup>2</sup> ) | A <sub>5</sub> (%) | PWHT            | Shielding gas           |
|---------|----------|-------------------------------------|-------------------------------------|--------------------|-----------------|-------------------------|
| DW-81B2 | Example  | 591                                 | 670                                 | 24                 | 690°C x 1 hr    | 80%Ar-20CO <sub>2</sub> |
|         |          | 549                                 | 633                                 | 25                 | 690°C x 1 hr    | 100%CO <sub>2</sub>     |
|         | Guaranty | ≥470                                | 550-690                             | ≥19                | 690±15°C x 1 hr |                         |
| DW-91B3 | Example  | 645                                 | 728                                 | 22                 | 690°C x 1 hr    | 80%Ar-20CO <sub>2</sub> |
|         |          | 602                                 | 690                                 | 20                 | 690°C x 1 hr    | 100%CO <sub>2</sub>     |
|         | Guaranty | ≥540                                | 620-760                             | ≥17                | 690±15°C x 1 hr |                         |

## Welding Positions

### DW-81B2

1.2mm



### DW-91B3

1.2mm



## Approvals

|         | LR       | DNV | BV | GL | ABS | R.M.R.S. | Others |
|---------|----------|-----|----|----|-----|----------|--------|
| DW-81B2 | E81T1-B2 | -   | -  | -  | -   | -        | -      |
| DW-91B3 | -        | -   | -  | -  | -   | -        | -      |