

# Gas Metal Arc Welding

JIS Z3321 Y321  
 AWS A5.9 ER321  
 DIN -

## MS M-321 Solid Wires for Stainless Steel

**Applications** Suitable for welding of 321 stainless steel. With Titanium added.  
 The Titanium acts in the same way Nb(Cb) in type 347 and thus increasing resistance to intergranular corrosion

| Brand Name                             |   | MS M-321   |            |            |            |          |           |    |         |
|--|---|------------|------------|------------|------------|----------|-----------|----|---------|
| Representative of diameter (mm)        | 0.8   | 0.9        | 1.0        | 1.2        | 1.6        | -        | -         | -  | -       |
| Chemical composition of wire (%)       | C   | Si         | Mn         | P          | S          | Ni       | Cr        | Mo | Ti      |
|  | ≤ 0.08  | ≤ 0.65     | 1.0-2.5    | ≤ 0.03     | ≤ 0.03     | 9.0-10.5 | 18.5-20.5 | -  | 9xC-1.0 |
| Mechanical property of deposited metal |   |            |            |            |            |          |           |    |         |
| Tensile strength                       | ≥ 550 N/mm <sup>2</sup>   |            |            |            |            |          |           |    |         |
| 0.2% Offset strength                   | ≥ 225 N/mm <sup>2</sup>   |            |            |            |            |          |           |    |         |
| Elongation                             | ≥ 30 %  |            |            |            |            |          |           |    |         |
| Impact test                            | NA  |            |            |            |            |          |           |    |         |
| Welding position                       | Horizontal/Flat position  |            |            |            |            |          |           |    |         |
| Welding polarity                       | DC-EP   |            |            |            |            |          |           |    |         |
| Shielding gas                          | 98%Ar - 2%O <sub>2</sub>  |            |            |            |            |          |           |    |         |
| Welding current                        | Dia.0.8 mm  | Dia.0.9 mm | Dia.1.0 mm | Dia.1.2 mm | Dia.1.6 mm |          |           |    |         |
|  | 80-180A   | 120-200A   | 140-250 A  | 170-300 A  | 200-350A   |          |           |    |         |
| Packing                                | 12.50 kgs standard other packing weight can be provided upon request. |            |            |            |            |          |           |    |         |