# Shield-Bright 316L

AWS A5 22 F3161 T1-1[6] / IIS 73323 TS3161 -FR

Flux CORED WIRES

#### **Description and Application**

 Shield-Bright 316L was developed for the welding of type 316L stainless steel but can be used for other stainless steels including types 316 and 304L. In a few cases, e.g. nitric acid service, Shield-Bright 316L should not be used to weld 304L. It contains molybdenum which resists pitting corrosion induced by sulphuric and sulphurous acids, chlorides and cellulose solutions.

Used widely in the rayon, dye and paper making industries.

Shield-Bright 316L was developed for welding in all positions and performs particularly well in the vertical position with excellent slag removal.

Shielding Gas: 100%CO2 or 75%Ar/25%CO2

#### Typical Mechanical Properties of All Weld Metal

| Shielding<br>gas         | Yield Point<br>N/mm²{kgf/mm²} | Tensile Strength<br>N/mm²{kgf/mm²} | Elongation<br>(%) |  |  |
|--------------------------|-------------------------------|------------------------------------|-------------------|--|--|
| 100%CO <sub>2</sub>      | 442 {45}                      | 570 {58}                           | 53                |  |  |
| 75%Ar/25%CO <sub>2</sub> | 450 {46}                      | 580 {59}                           | 40                |  |  |

## Typical Undiluted Weld Metal Analysis %

| Shielding<br>gas         | С     | Mn   | Si   | Р     | S     | Cr    | Ni   | Мо   | Ferrite No. |
|--------------------------|-------|------|------|-------|-------|-------|------|------|-------------|
| 100%CO <sub>2</sub>      | 0.028 | 1.10 | 0.80 | 0.027 | 0.010 | 18.50 | 11.8 | 2.60 | 8~15        |
| 75%Ar/25%CO <sub>2</sub> | 0.030 | 1.20 | 0.90 | 0.027 | 0.010 | 18.5  | 12.0 | 2.70 | 8~15        |

### **Approvals**

ABS, BV, DNV, KR, LR, NK, JIS