Stainless Steel BARE WIRE DATA SHEET

# executive 317L

## DESCRIPTION

**Executive 317L** is the same as ER317, except for the lower carbon content (0.03% max.). This wire is used for welding stainless steels with similar composition. Due to its higher molybdenum content this alloy offers higher resistance to pitting and crevice corrosion than ER316L, particularly in acid chlorine containing environments. Low carbon makes the weld metal less susceptible to intergranular corrosion. This low-carbon alloy, however, may not be as strong at elevated temperatures as the columbium (niobium)-stabilized alloys.

## TYPICAL CHEMICAL VALUES

| C | Cr | Ni | Mo | Mn | Si | P | S | Cu |
|---|---|---|---|---|---|---|---|---|
| 0.02 | 19.0 | 13.5 | 3.3 | 1.6 | 0.4 | 0.02 | 0.02 | 0.75 |

## WELDING PARAMETERS

| Process | Size | Volts | Amps | Speed of Welding / Gas Flow | Shielding Gas / Flux |
|---|---|---|---|---|---|
| SAW | .093 | 29 - 32 | 300 - 350 | 20 - 30 IPM | Record IN Flux |
| | .125 | 29 - 32 | 400 - 550 | 20 - 30 IPM | Record IN Flux |
| | .156 | 29 - 32 | 500 - 650 | 20 - 30 IPM | Record IN Flux |
| GMAW | .035 | 29 - 33 | 160 - 180 | 30 - 50 CFH | 98/99% Ar + 2/1% $O_2$ |
| | .045 | 29 - 33 | 180 - 220 | 30 - 50 CFH | or |
| | .062 | 29 - 33 | 210 - 250 | 30 - 50 CFH | 97% Ar + 3% $CO_2$ |
| GTAW | .093 | Direct Current; Electrode – | | 30 - 40 CFH | 100% Ar |

## MECHANICAL PROPERTIES

| | | |
|---|---|---|
| Tensile Strength: | 84,500 PSI | 580 MPA |
| Yield Strength: | 58,000 PSI | 400 MPA |
| Elongation: | 35% | |

## CLASSIFICATION

Wire chemistry has been optimized for best performance and conforms to **AWS/SFA 5.9, Class ER317L**, and is certified by the Canadian Welding Bureau to AWS A5.9. ISO 14343A, Class 18 15 3 L and ISO 14343B, Class SS317L.