



a quality welding alloy

## ARCtec® 278 ALLOY STEEL

### GENERAL CHARACTERISTICS:

ARCtec® 278 is a fabrication and maintenance electrode suitable for the joining of carbon and alloyed steels as well as austenitic manganese steel to each other or to other grades of steel. Weld deposit is resistant to frictional wear and has good strain hardening properties. ARCtec® 278 has outstanding welding characteristics in all positions and is highly crack resistant.

### APPLICATIONS:

ARCtec® 278 is excellent for the joining of dissimilar steel, the cladding of carbon steel and the repair and installation of manganese bucket lips, teeth to bucket shells and shaft build up. The installation and hard surfacing preparation of pipeline ditcher segments is a common use of ARCtec® 278. The recommended electrode for installation of ARCtec® wearplates is ARCtec® 278.

### WELDING PROCEDURE:

Remove all scale, grease and dirt from the weld zone and prepare joints as required. Observe good welding practices, including application of pre and postheat where necessary.

### MECHANICAL PROPERTIES:

| Tensile Strength | Yield Strength | Elongation | ft/lbs | Impact Strength | Joules | Temperature |
|------------------|----------------|------------|--------|-----------------|--------|-------------|
| 85,000 psi       | 50,000 psi     | 35% - 2"   | 44-65  | 60-90           |        | Ambient     |
| 585 Mpa          | 350 Mpa        |            |        |                 |        |             |

### OPERATING PARAMETERS:

WELDING PROCESS: SMAW

POLARITY: DC Reverse or AC

### Recommended Amperage:

| Diameter | 2.50 mm 3/32" | 3.25 mm 1/8" | 4.0 mm 5/32" | 5.0 mm 3/16" |
|----------|---------------|--------------|--------------|--------------|
| Amperage | 60-90         | 80-110       | 110-140      | 150-180      |

|                            |                          |                           |                          |
|----------------------------|--------------------------|---------------------------|--------------------------|
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