



**FUSION™ Ti** is a Flux cored hardsurfacing wire which produces a chrome titanium iron deposit. The weld deposit contains finely dispersed titanium carbide particles in a high chromium martensitic tool steel like matrix. **FUSION™ Ti** should be used for hardfacing components subjected to both severe gouging and grinding abrasion as well as heavy impact.

### Typical Deposit Characteristics

|                              |   |
|------------------------------|---|
| <b>Abrasion Resistance</b>   | Excellent   |
| <b>Hardness</b>              | HRC 56 – 60   |
| <b>Impact Resistance</b>     | Heavy   |
| <b>Deposit Layers</b>        | 3 Layer Average   |
| <b>Position</b>              | Flat, Horizontal  |
| <b>Surface Cross Checks</b>  | Little to none, with proper preheat & interpass temperature         |
| <b>Machinability</b>         | Material is too hard to be machined. Recommended for grinding only. |
| <b>Hot Wear Applications</b> | 1110° F (600° C) Maximum  |

### Operational Characteristics / Welding Parameters

|                                     |   |
|-------------------------------------|---|
| <b>Diameter, in (mm)</b>            | 1/16" or 0.045"   |
| <b>Current, Amp DCEP</b>            | 150 – 350A 100 – 300A   |
| <b>Wire Feed Speed</b>              | 120 – 300 IPM 150 – 450 IPM   |
| <b>Voltage</b>                      | 23 – 33 21 - 31   |
| <b>Wire Extension, in</b>           | ¾" – 1 ¾" ½" – 1 ½"   |
| <b>Shielding Gas (Not Required)</b> | If Desired: 100% Ar -OR- 100% CO <sub>2</sub> -OR- 75% Ar / 25% CO <sub>2</sub> |

| TYPICAL ALL-WELD METAL ANALYSIS |     |      |     |     |     |     |     |
|---------------------------------|-----|------|-----|-----|-----|-----|-----|
| C                               | Mn  | Si   | Cr  | Mo  | Ti  | V   | Fe  |
| 1.7                             | 1.2 | 1.30 | 7.0 | 1.2 | 5.1 | 0.2 | Bal |

### Alloy Type

Finely dispersed titanium carbide particles in a high chromium martensitic tool steel like matrix.

### Typical Applications

- Brick Dies
- Slurry Pipes
- Mixers Tyres
- Mining Equipment
- Cane Knives
- Scraper Blades
- Shovel Buckets
- Augers

### Standard Sizes & Packaging

|            |                |    |                |
|------------|----------------|----|----------------|
| Diameter:  | 1/16" (1.6 mm) | OR | 0.045" (1.2mm) |
| Packaging: | 55 lbs. Coil   | OR | 33 lbs. Spools |