



TENALLOY 38R SPL

C-Mn STEEL (Low Hydrogen)



Stick Welding Electrode with Excellent Mechanical & Impact Properties at Low Temperatures

CLASSIFICATION : ISO 2560-A

AWS A/SFA 5.5

E 42 5 B 32 H5

E 7018-G

KEY FEATURES :

- Heavy coated iron powder type
- Extremely high metallurgical purity
- C-1.2Mn-1Ni type weld deposit
- High impact at subzero temperatures

WELDING POSITION :



DCEP

TYPICAL APPLICATIONS :

- A537 class 1 (modified)
- Si-Mn steel containing up to 1% Ni
- 15Mn Ni63 structural steel
- For heavy joints under restraint and subjected to dynamic loading
- Low temperature applications
- Structural steels, Boiler plates & Pipe steels
- Welding of fine grained structural steels with minimum yield strength of 420 MPA

REDRYING CONDITION : 250-300°C for minimum 1 hr.

CHEMICAL COMPOSITION OF UNDILUTED WELD METAL, Wt % :

| | C | Mn | Si | Cr | Ni |
|---------------|-----------|-----------|-----------|-----------|------------|
| Typical | 0.07 | 1.2 | 0.28 | 0.08 | 0.8 |
| Specification | 0.05-0.10 | 1.0-1.50 | 0.15-0.45 | 0.1 max | 0.70 - 1.0 |
| | Mo | Cu | S | P | |
| Typical | 0.04 | 0.08 | 0.01 | 0.01 | |
| Specification | 0.06 max | 0.10 max | 0.015 max | 0.015 max | |

MECHANICAL PROPERTIES OF ALL WELD METAL :

| | Condition | UTS, MPa | YS at 0.2% offset, MPa | EL% | CVN Impact, J | | |
|---------------|------------------|-----------------|-------------------------------|------------|----------------------|--------------|--------------|
| | | | | | -20°C | -40°C | -50°C |
| Typical | As Welded | 550 | 460 | 28 | 142 | 97 | 67 |
| Specification | | 490 min | 400 min | 22 min | 120 min | 80 min | 50 min |

Diffusible H₂ Content: <5 ml/100 gm

PARAMETERS - PACKING DATA :

| Ø x L, mm | Amperage, A | Wt./Carton, Kg | Carton/Box | Net wt./Box, Kg. |
|------------------|--------------------|-----------------------|-------------------|-------------------------|
| 2.5 x 350 | 65-95 | 5 | 4 | 20 |
| 3.15 x 450 | 90-140 | 5 | 4 | 20 |
| 4.0 x 450 | 140-185 | 5 | 4 | 20 |
| 5.0 x 450 | 180-250 | 5 | 4 | 20 |