

Ferrod[®] 160T

CLASSIFICATION

| | | | |
|------------|---------------|---------|---|
| AWS A5.1 | E7024 | A-Nr | 1 |
| ISO 2560-A | E 42 0 RR 7 3 | F-Nr | 1 |
| | | 9606 FM | 1 |

GENERAL DESCRIPTION

Rutile electrode for fillet welds and horizontal V- and X-welds

Very high welding speed

Smooth weld appearance, very good slag release

High recovery (160% for 3.2 and 4.0 mm electrodes, and 180% for 5.0 mm electrodes)

WELDING POSITIONS (ISO/ASME)



PA/1G



PB/2F



PC/2G

CURRENT TYPE

AC / DC -

APPROVALS

| ABS | BV | DNV | GL | LR | RMRS | TÜV |
|-----|----|-----|----|----|------|-----|
| 2Y | 2Y | 2Y | 2Y | 2Y | 2Y | + |

CHEMICAL COMPOSITION (W%), TYPICAL, ALL WELD METAL

| C | Mn | Si |
|------|-----|-----|
| 0.07 | 0.9 | 0.6 |

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

| | Condition | Yield strength (N/mm ²) | Tensile strength (N/mm ²) | Elongation (%) | Impact ISO-V(J) 0°C |
|----------------------------------|-----------|--|---|--------------------|-------------------------|
| Required: AWS A5.1 ISO 2560-A | | min. 400 min. 420 | min. 490 500-640 | min. 17 min. 20 | not required min. 47 |
| Typical values | AW | 450 | 570 | 26 | 70 |

PACKAGING AND AVAILABLE SIZES

| | Diameter (mm) | 3.2 | 4.0 | 5.0 |
|------------------|----------------------|-----|-----|-----|
| | Length (mm) | 450 | 450 | 450 |
| Carton + PE foil | Pieces / unit | 85 | 60 | 40 |
| | Net weight/unit (kg) | 5.6 | 6.3 | 6.1 |

Identification Imprint: 7024/FERROD 160T Tip Color: none

Ferrod[®] 160T: rev. C-ENZ7-01/02/16

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EXAMPLES OF MATERIALS TO BE WELDED

| Steel grades/Code | Type |
|--|-----------------------------|
| General structural steels | |
| EN 10025 | S185, S235, S275, S355 |
| Ship plates | |
| ASTM A 131 | Grade A, B, D, AH32 to DH36 |
| Cast steels | |
| EN 10013-2 | GP240R |
| Boiler & pressure vessel steels | |
| EN 10028-2 | P235, P265, P295, P355 |
| Fine grained steels | |
| EN 10025 part 3 | S275, S355 |
| EN 10025 part 4 | S275, S355 |

CALCULATION DATA

| Sizes Diam. x length (mm) | Current range (A) | Current type | Arc time | Energy | Dep. rate | Weight/ 1000 pcs (kg) | Electrodes/ kg weldmetal B | kg electrodes/ kg weldmetal 1/N |
|---------------------------------|----------------------|-----------------|---|--------|-----------|-----------------------------|----------------------------------|---------------------------------------|
| | | | - per electrode at max. current - (S)* | E(kJ) | H(kg/h) | | | |
| 3.2x450 | 130-160 | AC | | | | | | |
| 4.0x350 | 180-220 | AC | 90 | 554 | 2.6 | 92.7 | 15 | 1.43 |
| 5.0x450 | 280-300 | AC | 78 | 897 | 5.4 | 166.7 | 9 | 1.43 |

*Stub end 35mm

WELDING PARAMETERS, OPTIMUM FILL PASSES

| Diameter (mm) | Welding positions | |
|------------------|-------------------|-------|
| | PA/1G | PB/2F |
| 3.2 | 150A | 140A |
| 4.0 | 210A | 200A |
| 5.0 | 300A | 280A |

REMARKS / APPLICATION ADVICE

High yield strength steels such as S355, P355 and DH36 preheat according EN 1011-1