

# FLEXAL 70

Obalená elektróda pre nelegované a nízko legované ocele  
 Covered electrode for welding unalloyed and low alloy steels  
 Elektroda otulona do spawania stali niestopowych i niskostopowych



## Cellulózový obal, Cellulosic covering, Otulina celulozowa

|                   |                  |             |
|-------------------|------------------|-------------|
| <b>Standards:</b> | DIN EN 499       | E 42 2 C 21 |
|                   | AWS/ASME SFA-5.1 | E7010-G     |
|                   | GOST: 9467-75    | 3 50-E51 3  |

### SK Vlastnosti a použitie:

Obalená elektróda pre obvodové zvary potrubí aj v polohe PG (spádová). Použiteľná pre koreňové, výplňové i krycie vrstvy. FLEXAL 70 je možno použiť pre zváranie koreňových vrstiev vysoko pevných oceľí na potrubíach.

### GB Applications and properties:

Electrode for welding girth seams of pipe lines, applying the vertical-down technique. It is suitable for welding root passes, filler and cover passes. FLEXAL 70 is also suited for depositing root passes on high-strength pipe steels.

### POL Zastosowania i własności:

Elektroda do spawania spoin obwodowych rurociągów techniką pionowo w dół. Przydatna do spawania warstw graniowych, wypełnień i warstw licowych. Elektroda FLEXAL 70 nadaje się też do spawania warstw graniowych na rurach ze stali o wysokiej wytrzymałości.

### Materials for instance:

| EN-Designation | DIN-/API-Designation | EN-Designation | DIN-Designation  |
|----------------|----------------------|----------------|------------------|
| L210 to L360   | 5LX63, X65, X70      | P235, P355     | St 37.4, St 52.4 |

**Approvals:** LRS - DNV - ABS - TÜV

### Weld metal analysis (typical values in %):

| C    | Si   | Mn   |
|------|------|------|
| 0,10 | 0,20 | 0,70 |

### Mechanical properties of all-weld metal (single values are typical values):

| Heat treatment | Yield strength [N/mm <sup>2</sup> ] | Tensile strength [N/mm <sup>2</sup> ] | Elongation A <sub>5</sub> [%] | Impact energy ISO-V [J] |
|----------------|-------------------------------------|---------------------------------------|-------------------------------|-------------------------|
|                |                                     |                                       |                               | -20 °C                  |
| AW             | ≥420                                | 500-640                               | ≥24                           | ≥47                     |

AW = as welded

**Redrying:** Do not redry!

### Amperage [A]:

| Ø 2,5 | Ø 3,2  | Ø 4,0   | Ø 5,0   |
|-------|--------|---------|---------|
| 50-70 | 80-120 | 110-150 | 140-200 |

### Number of pieces, net weights:

| Ø [mm] | Length [mm] | Pieces/Package | Weight/Package | Pieces/Carton | Weight/Carton |
|--------|-------------|----------------|----------------|---------------|---------------|
| 2,5    | 350         | 300            | 4,7            | 900           | 14,1          |
| 3,2    | 350         | 180            | 4,6            | 540           | 13,8          |
| 4,0    | 350         | 130            | 5,2            | 390           | 15,6          |
| 5,0    | 350         | 80             | 4,9            | 240           | 14,7          |

### Type of current/Polarity/Welding positions:

