



# CEWELD G4

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                         |                      |                    |                         |          |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------|--------------------|-------------------------|----------|
| TYPE                                              | High strength Mn / Mo- alloyed filler metal for flame welding with extreme good flowing properties without spatters during welding.(R60-G, OIV)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                         |                      |                    |                         |          |
| APPLICATIONS                                      | CEWELD® GIV is for Gas-welding of high-temperature low-alloy steels. Fields of application are. Boiler, tank, pipeline, equipment and reactor construction.Finegrain and creep resistant molybdenum containing steels.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                         |                      |                    |                         |          |
| PROPERTIES                                        | CEWELD® GIV is a high-strength manganese-molybdenum alloyed filler metal for flame welding with excellent flow properties and minimal spatter during welding. It has excellent mechanical strength due to the addition of molybdenum, making it ideal for heat-resistant applications up to 500°C. The deposit is homogeneous and suitable for heat treatment (PWHT).                                                                                                                                                                                                                                                                                                  |                         |                      |                    |                         |          |
| CLASSIFICATION                                    | AWS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | A 5.2: R60-G            |                      |                    |                         |          |
|                                                   | EN ISO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 20378: O IV             |                      |                    |                         |          |
|                                                   | F-nr                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6                       |                      |                    |                         |          |
|                                                   | FM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1                       |                      |                    |                         |          |
| SUITABLE FOR                                      | <b>Typ 0,5Mo ≤ 460 MPa, ISO 15608: 1.2, 1.3</b><br>1.5415, 1.0481, 1.0482<br><b>15Mo3, 16Mo3</b> , 20MnMoNi4-5, 15NiCuMoNb5, S235JR-S355JR, S235JO-S355JO, S450JO, S235J2-S355J2, S275N-S460N, S275M-S460M, P235GH-P355GH, P355N, P285NH-P460NH, P195TR1-P265TR1, P195TR2-P265TR2, P195GH-P265GH, L245NB-L415NB, L450QB, L245MB-L450MB, GE200-GE300<br>ASTM: A 29 Gr. 1013, 1016; A 106 Gr. C; A, B; A 182 Gr. F1; A 234 Gr. WP1; A 283 Gr. B, C, D; A 335 Gr. P1; A 501 Gr. B; A 533 Gr. B, C; A 510 Gr. 1013; A 512 Gr. 1021, 1026; A 513 Gr. 1021, 1026; A 516 Gr. 70; A 633 Gr. C; A 678 Gr. B; A 709 Gr. 36, 50; A 711 Gr. 1013;<br>API 5 L B, X42, X52, X60, X65 |                         |                      |                    |                         |          |
| APPROVALS                                         | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                      |                    |                         |          |
| WELDING POSITIONS                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                         |                      |                    |                         |          |
| TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%) | C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Si                      | Mn                   | Mo                 |                         |          |
|                                                   | 0.12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 0.2                     | 1.1                  | 0.5                |                         |          |
| MECHANICAL PROPERTIES                             | Heat Treatment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | R <sub>P0,2</sub> (MPa) | R <sub>m</sub> (MPa) | A <sub>5</sub> (%) | Impact Energy (J) ISO-V | Hardness |
|                                                   | As Welded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 350                     | 500                  | 22                 | RT                      |          |
|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                         |                      |                    | 60                      | HRc      |
| REDRYING                                          | Not required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                         |                      |                    |                         |          |
| GAS ACC. EN ISO 14175                             | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                         |                      |                    |                         |          |