

# CEWELD DUR CS

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |     |      |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----|------|
| TYPE                                        | Composite Nickel bronze alloy with tungsten particles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                 |     |      |
| APPLICATIONS                                | The area to be hardfaced should be free of rust, scale, grease or other dirt. Slowly preheat the area to a maximum of 500°C (932°F). Sprinkle the surface with Ceweld Universal-Flux to prevent oxides from forming in the molten matrix during application. Once the area is properly heated, start brazing with L-CuNi10ZnF tinning rods (about 1 mm layer). Now apply Dur CS. To make brazing easier dip the end in the brazing flux. NOTE: Do not overheat the hardfaced area. Particles can be pushed in correct position and dense configuration by using the end of the tinning Rod. Slow cooling is advised. Never cool area with water! |                 |     |      |
| PROPERTIES                                  | DUR CS brazing rods have a Nickel Bronze matrix with tungsten carbide inserts. DUR CS consists of sintered tungsten carbide fragments in a ductile Nickel Bronze Silver matrix. The alloy has a tensile strength of 80-100 ksi (550-690 MPa). DUR CS production methods ensure an overall tinning of the sintered tungsten carbide particles. DUR CS composite rods are available in two grades: Wear resistant and for cutting applications. Melting point of 935°C.<br>Tungsten carbide inserts:<br>75-80% WC, 10-12%Co, 3-5% TiC, 3-10% TaC (Nb)<br>Hardness: 1300-1400 HV                                                                    |                 |     |      |
| CLASSIFICATION                              | AWS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A 5.8: RBCuZn-D |     |      |
| SUITABLE FOR                                | Downhole reamers, openers, fishing tools (spears), coring tools, reamers, milling tools, overshots, stabilizers, steel sawing, concrete drilling.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                 |     |      |
| APPROVALS                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |     |      |
| WELDING POSITIONS                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                 |     |      |
| TYPICAL CHEMICAL ANALYSIS OF WELD METAL (%) | Cu                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Ni              | Si  | Zn   |
|                                             | 48                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 10              | 0.1 | Rem. |
| MECHANICAL PROPERTIES                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                 |     |      |
| REDRYING                                    | Not required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                 |     |      |
| GAS ACC. EN ISO 14175                       | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |     |      |