

## Dur CS

**CATEGORY** Brazing

**TYPE** Composite Nickel Silver 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 consists of sintered tungsten carbide fragments in a ductile nickel silver matrix. The alloy has a tensile strength of 100,000 psi. DUR- C S 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.

**CLASSIFICATION** EN ISO 14700:

**SUITABLE FOR** Downhole reamers, openers, fishing tools (spears), coring tools, reamers, milling tools, overshots, stabilizers, steel sawing, concrete drilling.

**APPROVALS** TÜV, CE approved

**WELDING POSITIONS:**



Cu	Zn	Ni	WC particles
48	42	10	60%

### MECHANICAL PROPERTIES

Heat Treatment	Rp0,2 (N/mm <sup>2</sup> )	Rm (N/mm <sup>2</sup> )	A5 (%)	Impact Energy (J) ISO-V		Melting point °C	Hardness HRc / HV
				-20°C	-40°C		
		800				900	

### BRAZING PARAMETERS / PACKING

Welding Parameters			Packing	
particle size mm / (inch)	Length (mm)	Oxi / Acetylene	kg / pack	kg / 6pack
1,6 - 3.2 (1/16 - 1/8)	450	neutral flame	5	30
3.2 - 4.7 (1/8 - 3/16)	450	neutral flame	5	30
4.7 - 6.35 (3/16 - 1/4)	450	neutral flame	5	30
6.35 - 7.9 ( 1/4 - 5/16)	450	neutral flame	5	30

**REDRYING TEMPERATURE** not required