



# CEWELD E DUR 12U

**TYPE** Cobalt-based thermo shock resistant alloy for overlay applications.

**APPLICATIONS** CEWELD® DUR 12U is a Stellite 12 alloy with excellent properties against abrasion, thermal shock and corrosion in conjunction with high temperatures. It produces a high-quality hardfacing on components that are exposed to multiple stresses from erosion, corrosion, cavitation, pressure, impact, abrasion and high temperatures up to 900 °C.  
For example: sealing surfaces on fittings, valve seats and cones for combustion engines, metal-to-metal sliding surfaces, highly stressed hot work tools without thermal shock, grinding, stirring and drilling tools.

**PROPERTIES** CEWELD® DUR 12U exhibits excellent welding properties and self-releasing slag. The weld metal can be machined with carbide tools and by grinding. The hardness of the weld metal decreases by around 20% at 600 °C. The weld metal is highly heat-resistant up to 900 °C. CEWELD® DUR 12U offers a low coefficient of friction and exceptional resistance to abrasion. Cavitation and erosion resistance is ten times that of 304 stainless steel. CEWELD® DUR 12U can be used to protect bearing surfaces in non-lubricated conditions due to its resistance to metal-to-metal wear.  
Hardness of the pure weld metal  
Hardness at RT: 48 - 50 HRC  
Hot hardness at 500 °C: approx. 40 HRC  
Hot hardness at 700 °C: approx. 33 HRC

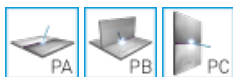
**CLASSIFICATION**

AWS	A 5.13: E CoCr-B
EN ISO	14700: E Co3
DIN	8555: E20-UM-50- CSTZ
F-nr	71

**SUITABLE FOR** 46-48 HRC, Stellite 12 Alloy with high temperature and abrasion resistance, Thermo shock resistant and impact resistant, Hardfacing valves, Seats, Pumps, Knives, Plastic recycling crushers etc.

**APPROVALS**

**WELDING POSITIONS**



**TYPICAL CHEMICAL ANALYSIS OF WELD METAL (%)**

C	Mn	Cr	Fe	W	Co
1.4	0.1	0.8	2.5	8	Rem.

**MECHANICAL PROPERTIES**

Heat Treatment	R <sub>P0,2</sub> (MPa)	R <sub>m</sub> (MPa)	A <sub>5</sub> (%)	Hardness
As Welded				49 HRc

**REDRYING** Not required

**GAS ACC. EN ISO 14175**



# CEWELD E DUR 12U

E DUR 12U 3,2 X 350MM

Packaging	KG/unit	EanCode
Can	2,6	8720663402134