



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 _{P0,2} (MPa)	R _m (MPa)	A ₅ (%)	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