

AX-Co12

Standards

EN 14700:	R Co3
AWS A5.21:	ERCoCr-B

Properties

Tough, high-strength and heat-resistant Stellite® alloy for build-up welding when wear stress is accompanied by light impact stress and corrosion. AX-Co12 is somewhat more wear resistant than AX-Co6. The toughness and hardness are between AX-Co1 and AX Co6. Very suitable for workpieces that have to withstand pressure and abrasion under high temperatures. Scale resistant up to approx. 900°C. Depending on the base material, a buffer layer with AX-307 is recommended.

Due to the Cr and W carbides incorporated in the cobalt base alloys, these alloys resist not only high abrasion but also strong corrosion attacks. The weld metal can still be machined well with carbide tools.

Important base materials / Important applications

Particularly suitable for sealing surfaces on fittings, valve seats and valve cones in combustion engines, highly stressed hot work tools without thermal shock stress, salt and lye pumps, rust and acid resistant fitting parts, shafts and spindles, grinding, stirring and drilling tools as well as for sliding surfaces from metal to metal.

Typical composition of welding rod / solid wire in %

C	Si	Mn	Cr	W	Ni	Fe	Co
1.4	1.3	0.1	30	8.1	2.4	2.5	Base

Mechanical properties of all-weld metal (typical values)

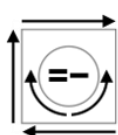
Hardness [HRc]	47 – 53 at 20°C
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Shielding gas: 100% Argon, PWHT: untreated

Operating data

TIG:

Shielding gas: I1 (100%Argon)
acc. to ISO 14175



Gas welding with oxygen-acetylene flame

Excess of acetylene (reducing flame)

Approvals

(Please ask for current scope)

Packaging and available sizes

Rods	Ø mm x 1000mm	2,7	3,2	4,0	5,0	6,4	
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Other dimensions on request.