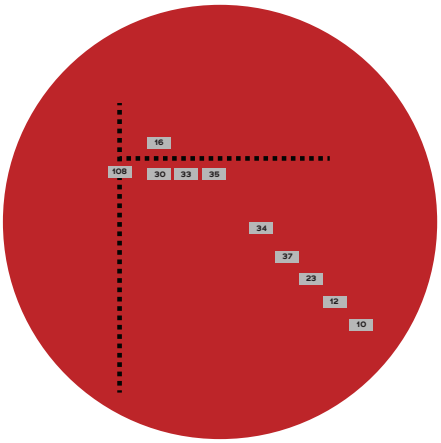
ARMALLOY™
HARDFACING ELECTRODE

The Armalloy™ range of tubular electrodes has been developed specifically for wear resistant hardfacing . The properties of the alloys making up the tubular electrode range have been engineered to provide extended service life at ambient and elevated temperatures in aggressive environments involving abrasion , erosion and impact . In addition to hardfacing sections of plant , Triten Armalloy grades 12 , 23 , 33 , 34 and 37 can be used on compatible wear resistant overlay plates in the Tritent and Trimay™ ranges .

ARMALLOY™ BENEFITS

- Low operating currents
- Low heat input
- No pre - baking
- No special storage
- No de - slagging
- Less distortion
- Easy to use
- No burn - through
- High deposition rates
- High yield
- 6,8,11mm electrodes all fit a standard holder
- Can be used on portable AC/DC welding units



Electrode data

	6	8	11
Nominal Length mm		450	450
Approx . No. per kg	13	7	4
Deposit Rate kg / h	2	2-3	4-5
Amperages Min	80	140	190
Amperages Min	130	190	250

Maximum recommended deposition

Armalloy Grade	Maximum Thickness mm	Layers
10 & 12	5-6	2
16	15	3-4
23	10	2-3
30,33,35	10	2-3
34	10	2-3
37	10-12	3-4
108	Unlimited	Unlimited

RELIABLE AND EFFICIENT ON - SITE PERFORMANCE

Unlike comparable extruded welding rods , the outer coatings of Triten Armalloy tubular electrodes are moisture resistant . They do not require special storage conditions , will not flake when damp , and resist mechanical damage . All electrodes can be used direct from the packet , without pre - baking with no need for de - slagging between runs and application is fast and efficient . A unified stub end size enables all electrodes to be used in a standard holder . Hardfacing can be carried out using most portable AC or DC welders .

TUBULAR ELECTRODE DESIGN LESS DISTORTION AND DILUTION

The special tubular construction of Criten ArmalloyTM electrodes has many practical advantages over extruded welding rods and hardfacing wires They require low operating currents , which produces less heat leading to less base metal penetration . This gives reduced distortion , minimises risk of burn - through and less dilution of the alloy overlay . Low operating currents also allow hardfacing on thin sections right up to and around the edges of auger flights , scraper and mixer blades and other worn sections . Deposition rates can be increased by introducing a second electrode into the weld pool , for example , during cast welding procedures used to protect bolt heads , etc.

Armalloy ™ Hardfacing Alloys The following pages provide a summary of the Triten Armalioym tubular hardfacing electrode range showing nominal compositions of the undiluted alloys . More detailed information is available on request .

ARNCO

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Armalloy 23

TIP COLOUR : Blue

An alloy with very high abrasion resistance at temperatures up to 650 ° C (1200 ° F) and an ability to withstand fine particle erosion . Not suitable for high impact conditions . Typical Chemical Composition (undiluted weld metal)

ELEMENT	C	Cr	Mo	V	Nb	V	HRc*
Wt%	5.5	19.0	5.0	1.0	5.0	2.5	60-64

Microstructure
Hyper - eutectic with primary chromium carbides and additional niobium carbides in an austenitic - eutectic matrix. The total amount of carbides is about 60-65 % .

Typical examples of applications
Repairs to Triten T223x and Trimay T45 overlay plate , coke plant , burden areas of blast furnace charging devices , boiler fan blades , blast furnace deflecting plates , sinter plant hot crusher parts , hot sinter screens , exhaust fan blades in sinter and pelletising plants

Armalloy 34

TIP COLOUR : Pale Green

Developed to offer excellent abrasion resistance in high velocity , fine particle applications in which erosive wear is a major problem

ELEMENT	C	Cr	Mo	V	B	HRc*
Wt%	5.5	19.0	5.0	1.0	5.0	60-64

Microstructure
Hyper - eutectic chromium carbides in a very fine grained martensitic - eutectic matrix .

Typical examples of applications
Repairs to Triten T211X and Trimay T157 overlay plates , fan blades , liner plates , impeller blades and housings .

ARNCO