Lincore® 60-O

Hardfacing cored wire

Classification

DIN 8555-83 : MF10-GF-60-CG

General description

Lincore 60-O is a self shielded, open arc, flux cored tubular electrode that produces a primary carbide weld deposit. Although , designed primarily for the open arc process it can be used with a neutral flux to improve the weld shape, minimise fume and remove arc glare.

Application

Lincore 60-O produces an primary carbide weld deposit with a hardness range of 55-60HRc. The primary carbide microstructure makes Lincore 60-O ideally suitable for applications of severe abrasion. Typical applications include:

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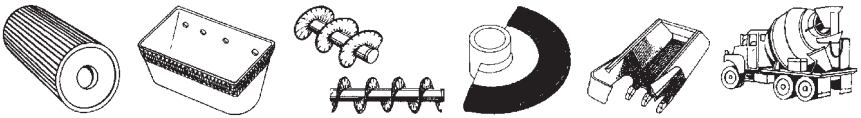
Crusher rolls, plates and jaws
Conveyor screws and sleaves
Bucket and shovel lips
Brick & coke machinery
Cement mill parts



FCAW

Mechanical properties, all weld metal

	Typical hardness values
Layer 1	55 - 60 HRc
Layer 2	58 - 60 HRc

Welded on Mild Steel Plate (12mm)

Packaging, available sizes and indentification

Unit type	Net weight/unit (kg)	Diameter (mm) 1.1	1.6	2.0
Wire reel 22RR	10			X
Wire reel 22RR	11.34	X	X	
Wire reel 50C	22.68			X

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Additional information

When welding with Lincore 60-O stringer beads should be employed. Weaving is not advised since wide weaves generally increase the check crack spacing which can result in deposit spalling. Preheat is not necessary when surfacing austenitic substrates such as stainless steels and manganese steels, although the interpass temperature should be limited to about 260°C for manganese steels. For low alloy and high carbon steels a preheat of 200°C is necessary to prevent heat affected zone

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The weld metal is not machinable or forgeable and it readily check cracks. The deposit thickness is usually limited to 2 layers, as excessive build-up will result in chipping and fragmentation.

For applications requiring build-ups in excess of 2 layers, buttering layers of Lincore 33, Wearshield BU30 or RepTec 126

Alternatively, a preheat of 650°C can be used to eliminate the formation of check cracks.

Welding positions

ISO/ASME PA/1G

Current type

DC +

Chemical composition (w%) typical, all weld metal

C	Mn	Si	Cr	Al
4.2	1.6	1.3	25.4	0.6

FCAW

Structure

In the as welded condition the microstructure consists of primary carbides in an austenite - carbide eutectic matrix

Calculation Data

Diameter (mm)	Wire Feed Speed (m/min)	Current (Amps)	Arc Voltage (volts)	Deposition Rate (kg/h)
1.1	5.1 to 12.7	125 - 210	21 - 27	1.9 - 4.7
1.6	5.1 to 11.4	240 - 350	28 - 33	3.4 - 7.5
2.0	6.4 to 3.2	250 - 400	25 - 32	3.4 - 6.9

Complementary products

Complementary products include Wearshield® 60

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