

DURMAT[®] OA

Flux-Cored Wire DIN EN 14700: T Fe20 (DIN 8555: MF21-65-CG)

General characteristics:

DURMAT OA is an open arc iron-based tubular wire filled with fused tungsten carbide for semi-automatic application, where extreme abrasive wear is anticipated.

Application:

For hard facing low alloyed steels that have a maximum of 0.45% carbon. Higher carbon content could lead to cracking. Also for hard facing and repairing tools and machine parts that are exposed to wear in mining, excavation, earth moving, tunneling shields, road construction, well drilling and deep drilling applications.

Physical characteristics:

Hardness:	Weld metal:	1st layer approx. 64 - 66 HRC 2nd layer approx. 66 - 68 HRC
	Carbide:	approx. 2360 HV _{0.1}

Welding recommendation:

Ø mm	Ø inch	coil size DIN EN 759	Amps	Voltage
1.2	0.045	B 300 (approx. 15 kgs)	130 - 600A	24 - 26 V
1.6	1/16	B 300 (approx. 15 kgs)	180 - 220 A	24 - 26 V
2.4	3/32	B 435 (approx. 25kgs)	240 - 280 A	26 - 28 V
2.8	7/64	B 435 (approx. 25 kgs)	240 - 280 A	26 - 28 V
3.2	1/8	B 435 (approx. 25 kgs)	250 - 300 A	26 - 28 V

The area to be hard faced should be free of rust, scale, grease or other dirt. Depending on the base metal's alloy and the size of the area to be hard faced the advisable preheating temperature should be between 350-500°C (662-932°F). If the amps are kept on the lowest setting possible the tungsten carbide granular will be prevented from melting. During welding, position the arc that the weld metal is deposited in coarse droplets.

NOTE: The base material that is to be hard faced should have enough tensile strength so that the hard facing overlay cannot be pressed into it.