



DURMAT® OAM ON

Seamless Cored Wire for Hardfacing

DIN EN 14700
DIN 8555

T Fe20-60-G
MF21-60-G

General characteristics:

DURMAT® OAM ON is a seamless open arc iron-based tubular wire filled with macrocrystalline Tungsten Carbide (MTC) for manual, semi-automatic and fully automated application, where extreme abrasive wear is anticipated. The wire design with increased wire stiffness and stability results improved wire feeding behaviour and is optimized for use in automated applications. The seamless cored wire design of DURMAT® OAM ON also offers significantly improved welding behavior with increased recovery, improved hard material retention and more even hard phase distribution. Coatings feature a high matrix hardness with embedded Fused Tungsten Carbide which provides protection against abrasion and erosion with fine and coarse abrasives. DURMAT® OAM ON is sensitive to impact loads and should normally be welded in one layer. Multilayer coatings are possible with correct welding technique. DURMAT® OAM ON can be welded by gas metal arc welding (GMAW) with shielding gas M21 according to DIN EN ISO 14175 (18% CO₂) or open arc (OA) without shielding gas.

Application:

Hardfacing 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.

Typical chemical composition (in wt.-%):

MTC: 61 %
Matrix: 39 %

Typical physical characteristics:

Hardness: Weld metal: 1st layer approx. 60-63 HRC
Carbide: approx. 1.700 – 2.000 HV_{0.1}

Sales units:

Spool BS 300 (DIN EN ISO 544): 15 kg
Spool B 450 (DIN EN ISO 544): 25 kg

Welding recommendation:

Shielding gas (DIN EN ISO 14175): M21 (Ar+18% CO₂)

Ø [mm]	Ø [inch]	Amperage [A]	Voltage [V]
1.6	1/16	130-200	17-20
2.0	5/64	140-220	18-22

The macro crystalline Tungsten Carbide filled tubular wire DURMAT® OAM ON is mainly designed for one layer welding. If the amps are kept on the lowest setting possible, the macro crystalline tungsten carbide will be prevented from melting.

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