

# diamondspark 46 MC

## Metal cored wire, seamless, unalloyed



MADE IN  
  
U. S. A.

Classifications			
EN ISO 17632-A	EN ISO 17632-B	AWS A5.36/SFA-5.36	AWS A5.18
T46 3 M M21 1 H5	T553T15-1M21A-H5	E71T15-M20A4-CS1-H4 E71T15-M21A4-CS1-H4	E70C-6M H4 - E70C-6M H4

**Characteristics and typical fields of application**

Seamless all positional metal cored wire for semi-automatic and fully automatic joint welding of unalloyed and fine-grained constructional steels utilizing service temperatures from -22 °F to +842 °F. Steady spray arc-like droplet transfer with minimal spatter formation. High resistance to porosity, good wetting behavior as well as low hydrogen contents ( $\leq 4$  ml/100 g deposit) are further quality features of this metal cored wire. Ideal for horizontal and flat fillet welds. This wire is designed for minimum oxide residues permitting the welding of multiple passes without the need for interpass cleaning.



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## Base materials

ASTM A 106 Gr. A, B, C; A 181 Gr. 60, 70; A 283 Gr. A, C; A 285 Gr. A, B, C; A 350 Gr. LF1; A 414 Gr. A, B, C, D, E, F, G; A 501 Gr. B; A 513 Gr. 1018; A 516 Gr. 55, 60, 65, 70; A 573 Gr. 58, 65, 70; A 588 Gr. A, B; A 633 Gr. C, E; A 662 Gr. B; A 711 Gr. 1013; A 841 Gr. A; API 5 L Gr. B, X42, X52, X56, X60, X65

## Typical analysis of all-weld metal (wt.-%)

	C	Si	Mn
wt.-%	0.06	0.80	1.50

## Mechanical properties of all-weld metal – typical values (min. values)

Condition	Yield strength	Tensile strength	Elongation A ( $L_0=4d_0$ )	Impact values CVN [ft.lb]		
	ksi	ksi	%	-4 °F	-22 °F	-40 °F
u	69.6 (66.7)	84.1 (79.8)	29 (≥20)	89	66	52

u = untreated, as welded – shielding gas M21, M20

## Operating data

Welding positions	Polarity	Shielding gases	ø inch
	DC (+)	(AWS A5.32) M21-M20  Argon + 5%-25% CO <sub>2</sub>	0.045 0.052 1/16

Welding with standard GMAW power source possible.

## Approvals

ABS, CWB

Article number	Size [inch]	Weight spool / drum	Weight pallet [lbs]	Packaging
43338	0.045	33 lb spool	2079	Plastic Spool / D300
43348	0.045	550 lb drum	2200	ECOdrum 250
43352	0.052	33 lb spool	2079	Plastic Spool / D300
43364	0.052	550 lb drum	2200	ECOdrum 250
43367	1/16	33 lb spool	2079	Plastic Spool / D300
43370	1/16	55 lb spool	1650	Plastic Spool / D25
43379	1/16	550 lb drum	2200	ECOdrum 250

Country of origin: USA