DURAMAX® Inspiring the future generations of welders	PRODUCT DATA SHEET	Page: 1 of 1 Date: 1/4/2016 Product: **DM5183**

DM5183 Premium Aluminum Magnesium Filler Metal

Classification: ER5183 AWS A5.10 / ASME SFA 5.10

Description, Characteristics & Applications:

ER5183 is similar to ER5356 with a 5% magnesium aluminum filler typically used on similar base metal as the ER5356, but may give higher strengths on such base metals like 5083 and other magnesium-containing base metals.
Typical applications: Cryogenic tanks. Railway Industry, Shipbuilding and other high strength structural aluminum applications.

Typical Chemical Composition (%)

Al	Si	Fe	Cu	Mn	Mg	Zn	Ti	Be	Cr	TOE
BAL	0.40 max	0.40 max	0.10 max	0.50-1.00	0.05-0.25	0.25 max	0.15 max	0.0003 max	0.10 max	0.05each/0.15Total

Typical Mechanical Properties as Welded

Ultimate Tensile Strength:	40,000 - 48,000 psi	Density:	0.096 lbs/in³
Yield Strength:	18,000 - 32,500 psi	Melting Range:	1075°F - 1080°F
Elongation in 2 inch (%):	12 - 16%	Post Color:	White

Typical Welding Parameters (GMAW) DCEP :

DIAMETER	WFS (imp)	AMPERAGE	VOLTS	Consumption lb/100ft	ARGON (cfh)
0.030"	480 - 625	60 - 175	15 - 24	0.65 - 1.25	25 - 30
0.035"	450 - 750	70 - 185	15 - 27	1.00 - 4.25	30 - 35
3/64"	330 - 500	125 - 260	20 - 29	1.00 - 4.25	35 - 45
1/16"	250 - 450	170 - 300	24 - 30	3.80 - 6.6	45 - 75
3/32"	160 - 200	275 - 400	26 - 31	3.5 - 6.6	60 - 85

Typical Welding Parameters (GTAW) ACHF (-) :

BASE	Filler Size	Tungsten	AMP's	Consumption lb/100ft	Gas Cup Size	ARGON (cfh)
1/16"	1/16"	1/16"	60 - 80	0.75	3/8"	20
3/32"	3/32"	3/32"	85 - 120	1.00	3/8"	20
1/8"	3/32"	3/32"	125 - 160	1.50	3/8"	20
3/16"	1/8"	1/8"	190 - 220	4.5 - 6.0	7/16"	25
1/4"	5/32"	5/32"	200 - 300	8.0 - 10.0	1/2"	30

Note: Maintaining proper welding procedure, including pre-heat and interpass temperatures, may be critical depending on the type and thickness of material to be welded.

If additional information is needed visit us on the web at www.duramaxwelding.com