Date: 1/4/2016
Product: **DM5554**

PRODUCT DATA SHEET

DURAMAX ALUMINUM BARE WIRE DM5554

Classification: ER5554 AWS A5.10 / ASME SFA 5.10

Description, Characteristics & Applications:

DURAMAX ER5554 was developed as a filler alloy, primarily for alloy 5454 that is widely used in the manufacture of chemical storage tanks, and in particular, those that may be subjected to temperatures in excess of 1500°F. This combination of alloys does not become sensitive to stress corrosion cracking (SCC) at elevated temperatures.

Non-Heat Treatable

Typical Chemical Composition (%)

Al	Si	Fe	Cu	Mn	Mg	Zn	Ti	Be	Cr	TOE
BAL	0.25 max	0.40 max	0.10 max	0.50 - 1.0	2.4 - 3.0	0.25 max	0.05 - 0.20	0.0003 max	0.05-0.20	0.05each/0.15Total

Typical Mechanical Properties as Welded

Ultimate Tensile Strength:	32,000 - 35,000 psi	Density:	0.097 lbs/in³
Yield Strength:	14,000 - 16,000 psi	Melting Range:	1155°F - 1195°F
Elongation in 2 inch (%):	16 - 18%	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