GB/T 10858 S Al 5249

AWS A5.10 ER5249

EN ISO 18273 S Al 5249

AK ER5249

TIG/MIG

Description:

ER5249 is a lower-magnesium Al-Mg-Mn-Zr filler classified as AlMg2Mn0.8Zr, typically containing about 1.6–2.5% Mg, 0.50–1.1% Mn, and 0.10–0.20% Zr. Published datasheets position it as a moderate-strength, ductile aluminum filler for controlled, lower-Mg weld deposits.

Application scenario:

Based on its chemistry and published guidance that higher Mg can raise stress -corrosion risk above 65°C, ER5249 is a practical choice for lower-Mg Al-Mg and Al-Mg-Mn fabrications where the weld metal should stay closer to base-metal chemistry. It fits tanks, sheet/plate assemblies, and corrosion-sensitive service.

Typical Chemical Compostion(%):

	Si	Fe	Cu	Mn	Mg	Zn	Ga V	Ti
Requirement	0.25	0.40	0.05	0.50-1.10	1.60-2.50	0.20	——	0.15
Actual Result	0.15	0.26	0.02	0.83	1.86	0.12	——	0.11
	Zr	Al	Be	Cr	Other			
Requirement	0.10-0.20	Rem.	0.0003	0.30	0.05			
Actual Result	0.15	Rem.	0.0001	0.10	0.02			

Typical Mechanical Properties:

	Tensile Strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values (J)
Requirement				
Actual Result	190		20	