

MATHESON *Select*[®]

AWS A5.32 Compliant Shielding Gases

Let MATHESON help you improve your operation

Key benefits of MATHESON's versatile welding gas compositions:

Improved Safety and Environmental Impact

- Reduced fumes & hexavalent chromium emissions
- Lower environmental impact

Enhanced Weld Quality

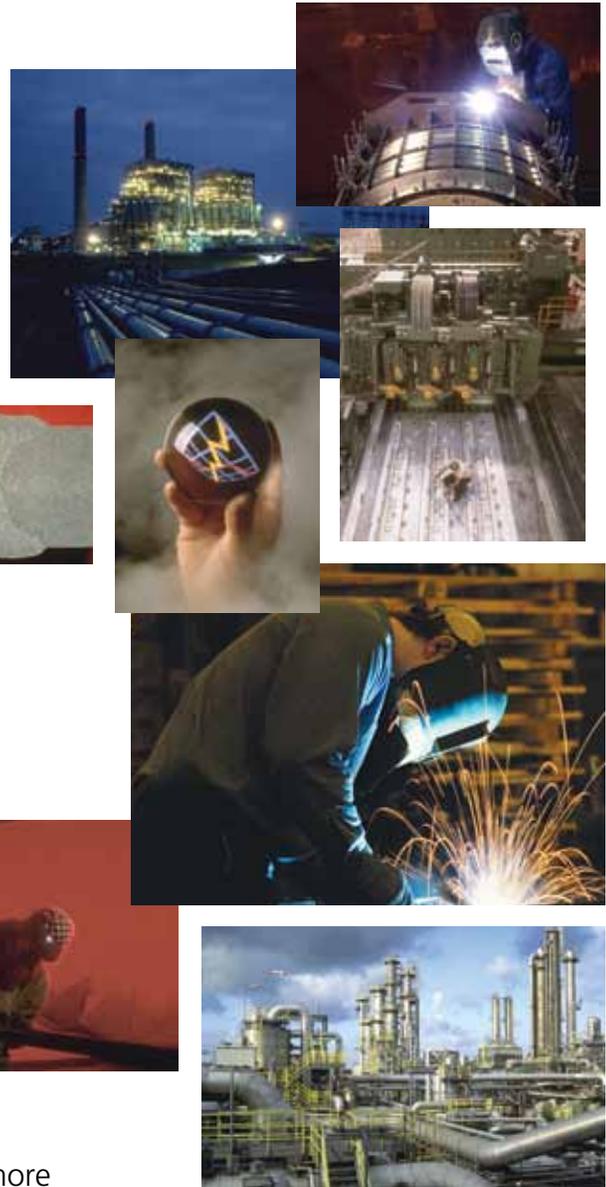
- AWS A5.32 compliant homogenous mixtures ensure consistently high mechanical properties and reduced porosity

Lower Welding Costs

- Reduced cost / ft and cost / lb
- Improved productivity by as much as 40%

Select MATHESON'S welding gases to help you improve your bottom line and achieve considerable gains in productivity, efficiency, and quality.

Contact your local MATHESON representative for more information. **877-684-4427**.



American Welding Society
Sustaining Company Member



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MATHESON Select [®] Product	Alloy Selection	Process	Thickness Range	Attributes
C-25	Carbon Steel	GMAW Short Circuit Transfer	.063" - .250"	Requirement for deep penetration short arc on material <.250"
		CS / SS FCAW	.250" +	Good arc transfer and penetration characteristics on materials < .375"
C-20	Carbon Steel	GMAW Short Circuit / Spray / Pulsed Spray	.063" +	Excellent penetration characteristics
		MCAW Spray / Pulsed Spray	.125" +	Superior penetration characteristics. Accommodates all positions in limited pulse spray condition dependent on power source characteristics
		FCAW Spray	.125" +	Excellent arc transfer. Good penetration characteristics
C-15	Carbon Steel / Stainless Steel	GMAW Short Circuit / Spray Transfer	Light Gauge / Heavy	Excellent short arc / spray. Good penetration.
		CS / SS FCAW	Structural Typically .250" +	Increased deposition rate and efficiency. Best arc characteristics
	Carbon Steel	MCAW Spray / Pulsed Spray	.125" +	Superior penetration characteristics. Accommodates all positions in limited pulse spray condition dependent on power source characteristics
C-10	Carbon Steel	GMAW Short Circuit / Spray Transfer	Light Gauge - Medium	Good all round shielding for GMAW / MCAW process considerations
	Carbon Steel	MCAW Spray / Pulsed Spray	.125" +	Superior penetration characteristics. Accommodates all positions in limited pulse spray condition dependent on power source characteristics
CO-104	Carbon Steel / Galvanized Steel	GMAW Short Circuit / Spray Transfer	Light Gauge -.50"	Excellent short arc / spray. Good penetration
		Pulsed Spray		Increased deposition rate and efficiency. Best arc characteristics
	Carbon Steel	MCAW Spray / Pulsed Spray	.125" +	Superior penetration characteristics. Accommodates all positions in limited pulse spray condition dependent on power source characteristics
C-2	Carbon Steel / Stainless Steel	GMAW Short Circuit / Spray Transfer	Materials < .375"	Low oxidation potential / Excellent arc characteristics Little to no spatter / Low fume emissions
Ar	Aluminum / Non Ferrous	GMAW / GTAW	Materials < .375"	Good all round shielding gas for non ferrous materials
He-25	Aluminum / Non Ferrous	GMAW / GTAW	.19" - 1.50"	Much improved arc starting and reduced porosity
	Aluminum	GMAW / GTAW	.19" - 1.50"	Excellent arc energy to deal with oxide layer. Increased travel speed, 10%+ typical
He-50	Aluminum / Non Ferrous	GMAW / GTAW	Heavier Sections 1.50" +	Good penetration / reduced porosity on heavier sections. Increased travel speed
He-75	Aluminum / Non Ferrous	GMAW / GTAW	Heavy Sections - 2.00" +	Increased penetration on heavy sections
HC-925	Stainless Steel	GMAW Short Circuit Transfer	Gauge - .250"	Limited parameter range. High heat input on light materials
HC-725	Stainless Steel / Nickel Based Alloys	GMAW Short Circuit / Spray / Transfer / Pulsed Spray Transfer	Gauge - .500"	Excellent short arc & spray on Ni based materials. Stainless / Monel / Hastalloy / Inconel
HC-332	Stainless Steel / Nickel Based Alloys	GMAW Short Circuit / Spray / Transfer / Pulsed Spray Transfer	Gauge - .500"	Excellent short arc spray and pulsed spray on Ni based materials. Stainless / Monel / Hastalloy / Inconel
HC-1018	Galvanized Steel / Stainless Steel	GMAW Short Circuit / Spray Transfer	Gauge - .500"	Excellent arc stability through zinc coatings. Reduced fume & spatter
		CS & SS FCAW	.250" +	Noticable reduction in particulate & fume emissions. Excellent metallurgical characteristics
	Carbon Steel	MCAW Spray / Pulsed Spray	.125" +	Superior penetration characteristics. Accommodates all positions in limited pulse spray condition dependent on power source characteristics
AO-2	Carbon Steel	GMAW Short Circuit / Spray Transfer	Light Gauge / Cold Rolled	Very stable arc with reduced fume emissions
H-3	Stainless Steel (300 series)	GTAW	Light Gauge - .375"	Excellent color match and increased travel speeds
DP-1021	Duplex / Super Duplex	GMAW Short Circuit / Spray	Gauge - .500"	Excellent color match & increased travel speeds
		Pulsed Spray		Excellent color match & increased travel speeds
DP-122	Duplex / Super Duplex	GTAW	Gauge - .500"	Excellent color match & arc starting characteristics
APN-7*	Aluminum	GTAW / GMAW	0.125" - 1.500"	Excellent penetration characteristics producing porosity free welds. Advanced process capability for ultimate arc control
HENON-237*	Aluminum	GTAW / GMAW	0.125" - 1.500"	Superior penetration characteristics producing porosity free welds with narrow heat affected zone / increased travel speed
APN-10*	Aluminum	GMAW	0.125" - 1.500"	Superior penetration characteristics producing porosity free welds with narrow heat affected zone
HEPN-10*	Aluminum	GMAW	0.125" - 1.500"	Superior penetration characteristics producing porosity free welds with narrow heat affected zone / increased travel speed

* Patent Pending



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