Technical Detail

	Product Name	Classification	Mechanical Properties Of Weld Metal (Typical)					Unique Feature
		AWS/SFA	Yield Strength N/mm2	Tensile Strength N/mm2(MIN)	Elongation 4D(%)	Impact (J)	Welding Conditions	
	CELLULOSIC ELECTRODES							
1	GM 60 P	E 6010	380	510	24	47 at -30°C	DC(+)	A high cellulose sodium electrode with excellent penetration at all position. Best suitable for pipes and pipelines welding. Excellent mechanical properties in class.
2	GM 60 PR	E 6011	380	515	24	47 at -30°C	AC;DC+	A high cellulose potassium electrode with excellent penetration at all position. Best suitable for pipes and pipelines welding. Excellent mechanical properties in class.
3	GM 70 P	E 7010 P1	415	490	22	27 at -30°C	AC;DC+	Heavy Coated all postion electrode with cellulosic coating providing good welder appeal and smooth arc characterstic .This electrode has been specially deisgn for high yeild pipeline steels.
	RUTILE ELECTRODES							
4	GM 10	E 6013	330	430	17	NA	AC;DC+	All position general purpose electrode with striking & restriking charecters
5	GM 20	E 6013	410	505	24	70 at 0°C	AC;DC+	very soft arc, minimum spatter, smooth fine rippled radiographic weld bead. Superior slag detachablity. Excellent impact notch toughness at 0°C
6	MODI XL 13S	E 6013	410	480	24	60 at 0°C	AC;DC+	Ultra smooth weldability. Especially suited for thick section fillet joints. Excellent arc stability even at low current.
7	GM 30	E 6013	430	520	25	70 at 0°C	AC;DC+	Ultra smooth weldability. Very smooth fusion with excellent slag detachability. Especially suited for thick section fillet joints. Excellent arc stability even at low current.
8	GM 40	E 6013	430	525	25	70 at 0°C	AC;DC+	Rutile heavy coated, finely rippled smooth weld bead. Superior slag detachability. Excellent arc striking and restrinking.
	LOW HYDROGEN HIGH STRENGTH ELECTRODES							
9	GM 14	E 7014	438	519.7	26	70 at -27°C	AC;DC+	Heavy coated rutile type electrode with minimum 110% recovery
10	GM 24	E 7024	400	490	17	NA	AC;DC+	Rutile Base Super Heavy Coated Electrode with 130 min recovery ,suitable for Horizental & Fillet welding of heavier section with radiography qulaity.
11	GM 16	E 7016-H4	495	590	27	70 at -30°C	DC+;AC	Excellent weldability. Self peeling slag. Excellent mechanical Properties.
12	GM 16 SPL	E 7016-1-H4	495	600	30	60 at -45°C	DC+;AC	Ultra Smoot finely ripled weld bead. Less than 4.0 ml diffusible hydrogen. Excellent impact notch toughness in class.
13	GM 16-A1	E 7016-A1-H4	480	595	26	N/S	DC+;AC	Ultra Smoot finely ripled weld bead. Less than 4.0 ml diffusible hydrogen. Excellent for C- 0.50% Mo Steels.
14	GM 18	E 7018-H4	505	605	28	80 at -30°C	AC:DC+	Excellent weldabillity. Best in Class mechanical properties. Lesss than 4.0 ml diffusible hydrogen level.
15	GM 18 G	E 7018-G-H4	495	590	23	N/S	AC:DC+	Excellent Weldability. Tough and crack free joints.
16	GM 18 SPL	E 7018-1-H4	510	600	30	70 at -45°C	AC:DC+	Ultra Smooth finely rippled weld bead. Less than 4.0 ml diffusible hydrogen level.
17	GM 18 A1	E 7018-A1-H4	490	600	26	N/S	AC:DC+	Excellent weldabbility. Best suited positional welding. Excellent creep resistant.
	HEAT RESISTING ELECTRODES / HIGH STRENGTH ELECTRODES (LOW HYDROGEN)							
18	GM 80 G	E 8018-G	510	620	28	N/S	AC:DC+	Excellent toughness and formability. Highly crack resistant joint welding.
19	GM 80 B2	E 8018-B2	505	600	20	N/S	AC:DC+	Ultra smooth finely rippled bead. Best in class mechanical properties.
20	GM 80 B6	E 8018-B6	460	550	19	N/S	AC:DC+	Low Hydrogen Basic Iron Powder type electrode ,Design for creap resistant steel with 5 %cr and 0.5 % mo
21	GM 80 B8	E 8018-B8	460	550	19	N/S	AC:DC+	Basic Coated Low Hydrogen type electrdoe yelding 9 % cr and 1 % mo
22	GM 80 C1	E 8018-C1	460	550	19	27 at -60°C	AC:DC+	Hydrogen Controled iron poweder type heavy coated electrdoe ,suitable for medium tensil and low alloy stractural steel
23	GM 80 W2	E 8018-W2	460	550	19	27 J at -20°C	AC:DC+	Basic Coated Electrode which gives radiographic quality weld ,Design for low alloy steel,Cupper bearing corresion resistant steel.
24	GM 90 B3	E 9018-B3	610	715	20	N/S	AC:DC+	Excellent weldability and mechanical properties.
25	GM 90 G	E 9018-G	605	710	20	N/S	AC:DC+	Excellent weldability extra low hydrogen, self peeling slag, best in class mechanical properties.
26	GM 90 M	E 9018 M-H4	540	620	24	27 J at -50°C	AC:DC+	Extra Low Hydrogen. Tough and crack free welded joints. Excellent mechanical properties.
27	GM 90 D1	E 9018-D1	530	620	17	27 J at -50°C	AC:DC+	Heavy coated low hydrogen electrdoe suitable for welding of high strength steel

28	GM 100 D2	E 10018-D2-H4	620	725	22	50 at -50°C	AC:DC+	Smooth finely rippled weld bead. Excellent impact notch toughness at -50'C. Recommended for critical secuirty welding applications.
29	GM 100-G	E 10018-G-H4	680	810	18	N/S	AC:DC+	Superior weldability, concentrated arc, smooth weld bead, self releasing slag.
30	GM 110-G	E 11018-G-H4	720	780	16	N/S	AC:DC+	Superior weldability, concentrated smooth arc, all positisons, crack free joints.
31	GM 110-M	E 11018-M-H4	710	810	20	45 at -50°C	AC:DC+	Excellent weldability. Best in class mechanical properties.

STAINLESS STEEL ELECTRODES								
1	GM 307	E 307L-16	–	600	38	>75 at RT	AC;DC+	Austenitic structure, rutile type, exellent weldability.Excellent machinability.
2	GM 308S	E 308-16	–	550	35	_>55 at RT	AC;DC+	Rutile Type Stainless Steel Electrode with 18 cr and 8 Nickel
3	GM 308H	E 308H-16	–	600	37	_>55 at RT	AC;DC+	Smooth weldability. Suitable for high temperature applications.
4	GM 308L (RED/OFF WHITE)	E 308L-16	–	610	42	60 at RT	AC;DC+	LMA type coating, superior weldability without spatter, self peeling slag. Best in class mechanical properties.
5	MODI SS 308L	E 308L-16	–	590	41	60 at RT	AC;DC+	LMA type coating, superior weldability without spatter, self peeling slag. Best in class mechanical properties.
6	GM 309CB	E 309Cb-16	–	590	36	75 at RT	AC;DC+	Excellent resistance to chemical corrosion and heat. Weldability with spatter free arc, self-releasing slag.
7	GM 309L (GREEN/OFF WHITE)	E 309L-16	–	600	35	60 at RT	AC;DC+	Excellent weldability, self peeling slag. Best in class mechanical properties. Best for joining dissimilar steels.
8	GM 309LMO	E 309LMo-16	–	600	35	65 at RT	AC;DC+	Highly crack resistant. Soft fusion, nice aspect of the bead, slag lifts by itself
9	GM 309M0-15	E 309LMO-15	–	550	30	65 at RT	AC;DC+	Basic coated stainless steel electrode ,which has excellent corresion resistant at evaluated temp up to 1100 Degree Centigrade ,Suitable for welding of difficult weld material w/o hot cracking or brittle structure
10	GM 310	E 310-16	–	610	35	75 at RT	AC;DC+	Austenitic structure, rutile type, exellent weldability.
11	GM 316L	E 316L-16	–	610	35	60 at RT	AC;DC+	Superior weldability, finely rippled bead, self peeling slag. Best in class corrosion resistant.
12	GM 316 NF	E 316L-16	–	490	30	_>50 at -60'C	DC+	High Strength Austenitic good crack resistance welding
13	GM 317L	E 317L-16	–	590	35	50 at RT	AC;DC+	Excellent weldability. Smooth arc, finely rippled weld bead, self releasing slag.
14	GM 318	E 318-16	–	590	30	65 at +20'C	AC;DC+	Excellent intergranular corrosion resistant, good weldability, self peeling slag.
15	GM 347	E 347-16	–	590	36	60 at RT	AC;DC+	Soft fusion, without spatters, very easy slag removal, exceptional weld bead appearance, easy restriking.
16	GM 385	E 385-16	–	590	35	_>70 at +20'C	AC;DC+	Fully austenitic, highly corrosion resistant. Good weldabiity in all position, except vertical down.
17	GM 410-16	E 410-16	–	620	28	–	DC+	Heavy coated low hydrogen type.
18	GM 410NiMo-16	E 410NiMo-16	–	850	20	–	DC+	Basic Coated , superior weldability. Excellent resistance to abrasion.
DUPLEX / SUPER DUPLEX ELECTRODES								
19	GM DUPLEX (2209)	E 2209-16	–	800	28	_>47 at-40'C	AC;DC+	Corrosive resistant duplex-steels. Excellent resistance to intergranular corrosion, pitting and stress corrosion conditions.
20	GM DUPLEX SPECIAL	E 2205-16	–	655	25	_>47 at-40'C	AC;DC+	Corrosive resistant duplex-steels. Excellent resistance to intergranular corrosion, pitting and stress corrosion conditions.
21	GM DUPLEX -1	E 2553-16	–	760	15			A Rutile based electrode designed for welding Super Duplex Stainless Steel. It gives excellent welding charactors with all positions smooth and stable Arc.
22	GM SUPER DULEX (2594)	E 2594-16	–	880	22	_>47 RT	AC;DC+	Super-duplex stainless steels. Exellent resistant to pitting and crevice corrosion. Excellent weldability, spatter free arc, very smooth bead appearance.
Note : All Stainless Steel Electrode's Available with (15, 16, 17)Series as per customer requirment with different flux colour								

HARDFACING WELDING ELECTRODES								
1	GM 25R	DIN 8555: E1-UM-250					AC;DC+	Hardness : 250-300 BHN Rutile Type
2	GM 35	DIN 8555: E1-UM-350	–	–	–	–	AC;DC+	Hardness : 37-40 Hrc Rutile Type
3	GM 40	DIN 8555: E7-UM-200KP	–	–	–	–	AC;DC+	Heavy basic coated austenitic manganese alloyed electrode. Hardness as welded : 180-220 (BHN) Hardness (work condition) : 400-450 (BHN)
4	GM MN	DIN 8555: E7-UM-200KP	–	–	–	–	AC;DC+	Heavy basic coated austenitic manganese alloyed electrode. Hardness as welded : 170-220 (BHN) Hardness (work condition) : 400-500 (BHN)

5	GM HARD	DIN:8555: E6-UM-55P	–	–	–	–	AC;DC+	500 -550 BHN (Basic Coated Electrdoe depositing alloy cast iron which is hard and extremly resistant for metal to metal wear.
6	GM 50 R	DIN:8555: E6-UM-60P	–	–	–	–	AC;DC+	Hardness : 57-60 HRc Basic Coated.
7	GM 55R	DIN:8555: E6-UM-60P	–	–	–	–	AC;DC+	Hardness : 57-60 HRc Rutile Type.
8	GM 60 R	DIN:8555: E6-UM-60-S	–	–	–	–	AC;DC+	Hardness : 58-60 HRc Rutile Type.
GAUGING ELECTRODES								
9	GM – GAUGE	–	–	–	–		AC;DC±	A special purpose electrode producing hot,exothermic,penetrating arc for chemfering, grooving or gouging operations on all ferrous and non-ferrous metals. Ideal to remove most unwanted metal prior to final machining.
CUTTING ELECTRODES								
10	GM – CUT						AC;DC±	A versatile electrode for high speed cutting and piercing of all metals using standard electric arc equipment. Ideal for cutting and piercing carbon steel, stainless steel, cast iron etc.The electrodes can withstand high current without overheating.
NON MACHINABLE CAST IRON WELDING ELECTRODES (NICKEL FREE)								
11	GM CAST 1	–	–	–	–	–		Non Machinable High Strength Electrode ,Suitable for Welding of oil soaked and dirty cast iron
MACHINABLE CAST IRON WELDING ELECTRODES (HIGH NICKEL)								
12	GM CAST 2 (55)	E NiFe-CI	400	500	15 (2 in.)	–	AC;DC+	Graphite basic coated. Ferro-Nickel alloy. Good bonding and flow of the weld metal. Good Machinability
13	GM CAST 3 (99)	E Ni-CI	290	370	4 (2 in.)	–	AC;DC+	Excellent achiability. Pure nickel electrode. Smooth and intensice arc. Easy slag removal.
14	GM CAST 4 (60)	ENI-CU-B	290	370	4 (2 in.)	–	AC;DC+	Suitable for Welding of cast Iron without Pre heating
15	GM CAST 40							
16	GM NiCu7	E Ni-Cu-7	–	580	35	–	DC+	Universal monel repairing, joining , problem solver. Weld metal corrision resitant to sea water, salts and reducing acids.
INCONEL / MONEL WELDING ELECTRODES								
17	GMSA 62 NiCrFe-2	E Nicr Fe-2	–	650	40	–	DC+	Excellent ouit of position welding. Excellent corrosion resistant even at elevated temperatures.
18	GMSA 72 NiCrFe-3	E Nicr Fe-3	–	650	40	–	DC+	Excellent ouit of position welding. Excellent corrosion resistant even at elevated temperatures.
19	GMSA 71- Nicr Mo-3	E Nicr Mo-3	–	850	38	–	AC;DC+	Superior weldability. Fully austenitic, excellent resistance against corrosive media.
BRONZE ELECTRODES								
20	GM BRONZE	E CUSN-A	–	240	20	–	AC;DC+	Light coated electrode specially design for cupper and bronze

Technical Detail

Stainless steel MIG wire				
PRODUCT NAME	**AWS/SFA CLASS**	**DESCRIPTION**	**APPLICATION**	**PACKING INFORMATION**
GMM MIG 308L	**ER308L**	ER308L carbon content has been held to a maximum of .03% to reduce the possibility of intergranular carbide precipitation. ER308L is ideal for welding Types 304L, 321, and 347 stainless steels. This is a suitable wire for applications at cryogenic temperatures.	· Pipeline & Tubes · Chemical Plants · Food processing plant · Boiler · Cryogenic applications · Railways wagons	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack
GMM MIG 308LSi	**ER308LSi**	ER308LSi has been held to a maximum of 0.03% to reduce the possibility of intergranular carbide precipitation and Si increase to 0.65% to 1.00%. ER308LSi is ideal for welding Types 304L, 321, and 347 stainless steels.	· Pipeline & Tubes · Chemical Plants · Food processing plant · Boiler · Cryogenic applications · Railways wagons	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack
GMM MIG 316L	**ER316L**	ER316L filler metal is primarily used for welding low carbon molybdenum-bearing austenitic alloys. Good resistance to general and, owing to low C content, intergranular corrosion. The Mo content gives good resistance also to pitting. The 2% molybdenum content of 316L gives the weld deposit excellent corrosion resistance at elevated temperatures against “pitting” that may be caused by sulfuric, phosphoric and acetic acids.	· Gas pipeline & Tubes · Chemical Plants · Paper & Ink plant · Acid tanks · Paint Industries · Textile Industries	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack
GMM MIG 316LSi	**ER316LSi**	ER316L filler metal is primarily used for welding low carbon molybdenum-bearing austenitic alloys. Good resistance to general and, owing to low C content, intergranular corrosion. Higher Si % provide good weld beads. The Mo content gives good resistance also to pitting. The 2% molybdenum content of 316L gives the weld deposit excellent corrosion resistance at elevated temperatures against “pitting” that may be caused by sulfuric, phosphoric and acetic acids.	· Gas pipeline & Tubes · Chemical Plants · Paper & Ink plant · Acid tanks · Paint Industries · Textile Industries	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack
GMM MIG 307Si	**307Si (1.4370)**	GMM MIG 307Si is a solid wire electrode for GMAW, intended for welding work-hardenable steels, Armor steel and austenitic stainless manganese steels. Also suitable for joining stainless chromium steels with chromium content up to 17% and overlay welding of mild steels and low-alloy steels. GMM MIG 307Si is similar to ER 307 type with increased manganese content (≈ 6.0%), reducing the risk for hot cracking.	· Defence Industries · Armor steel Plates · Railways coach · Automobile · Mining equipment	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack
GMM MIG 309L	**ER309L**	The alloy is also used for welding of buffer layers on C-Mn steels and welding of dissimilar joints. When using the wire for buffer layers and dissimilar joints it is necessary to control the dilution of the weld .The maximum carbon content of less than 0.03% preserves the intergranular corrosion resistant properties of the weld deposit and weld zone, Yielding x-ray quality welds.	· Defence Industries · Railways wagon · Power plants · Automobile · Mining equipment	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack
GMM MIG 309LSi	**ER309LSi**	The alloy is also used for welding of buffer layers on C-Mn steels and welding of dissimilar joints. When using the wire for buffer layers and dissimilar joints it is necessary to control the dilution of the weld .The maximum carbon content of less than 0.03% preserves the intergranular corrosion resistant properties of the weld deposit and weld zone, Yielding x-ray quality welds. The higher silicon content improves the welding properties, such as wetting.	· Defence Industries · Railways wagon · Power plants · Automobile · Mining equipment	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack
GMM MIG 310	**ER310**	ER 310 is used for welding types AISI 310, 304 clad stainless steel, ferritic and martensitic chromium steels, and for stainless steel overlay work on mild and carbon steels. 310 welding wire produces weld deposits of high strength and high resistance to scalling at elevated temperatures. Scaling resistant ferritic chromium steels, provided that corrosion attack by reducing sulphur-bearing combustion gases is not be expected. Weld metal exhibits good toughness down to -196°C and non-scaling up to 1200°C.	· Industrial furnaces and equipment · Cement plants · Steel industries · Heat exchanger	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack .

GMM MIG 312	**ER312**	ER312 is used to weld cast alloys of similar composition and is used to weld dissimilar metals and weld overlays. This alloy has very high ferrite. When welding similar cast alloys, limit welding to two or three layers only. Two-phase weld deposit with substantial amounts of ferrite in an austenitic matrix makes it highly resistant to weld metal cracking or fissures. Weld deposits are ductile, with good root penetration.	· Hard facing applications · Armor steel Plates · Tools & Dies · Spring steel · Repair works	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack
GMM MIG 347Si	**ER347Si**	ER347Si is recommended for welding AISI 347 and 321. The weld metal has good resistance to general corrosion. The alloy is stabilized with Niobium to improve the resistance against intergranular corrosion of the weld metal. The higher silicon content improves the welding properties, such as wetting. Due to the niobium content this alloy is recommended for use at higher temperatures ER347Si is suitable for applications where welds are subjected to high temperatures (+ 750ºF).	· Food & Beverages industries · Chemical Plants · Pharmaceutical industries · Oil refineries · Steam valves & fitting	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack
GMM MIG 385	**ER385**	A high alloy “super austenitic” stainless steel originally called 904L and containing extra low residual elements of carbon, silicon, phosphorus and Sulphur – which reduces weld metal hot cracking and fissuring while maintaining corrosion resistance of the deposit. ER385 filler metal may also be used to join Type 317L material where improved corrosion resistance in specific media is needed. The resistance and crevice corrosion is better than for ordinary 18% Cr, 8% Ni, Mo steels.	· Flue gas desulphurization plants · Fertilizer plants · Paper industries · Petrochemical · Sea water transfer fittings · Water treatment plants	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack
GMM MIG 2209	**ER2209**	ER2209 is intended to weld duplex stainless steels. It exhibits high tensile strength and resistance to stress and corrosion cracking. Exhibits a low ferrite. Weld deposit has an austenite and ferrite microstructure which classifies 2209 as a “duplex stainless”. In media containing chloride and hydrogen sulphide the alloy has a high resistance to intergranular, pitting and especially to stress corrosion.	· Acid tanks & pipes · Fertilizer plants · Paper industries · Petrochemical · Desalination industries	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack
GMM MIG 2594	**ER2594**	A super-duplex grade provide the optimum ferrite/austenite ratio in the finished weld resulting in high tensile and yield strength and superior resistance to stress corrosion, cracking (SCC) and pitting corrosion. Pitting Resistance Equivalent Number (PREN) above 40 indicates superior pitting corrosion resistance in aqueous chloride containing service conditions as well as good resistance against stress corrosion cracking.	· Power Plants · Fertilizer plants · Paper industries · Petrochemical · Desalination industries	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack
GMM MIG 410	**ER410**	410 is an air-hardening 12% chromium stainless steel for welding types 403, 405, 410, 414, and 416. Also an overlay on carbon steels for corrosion, erosion and abrasion resistance. Weld deposits exhibit good strength and ductility as well as corrosion and oxidation resistance at high temperatures. Preheating and an inter-pass temperature of not less than 200°C is recommended to achieve adequate ductility.	· Water & Steam turbines · Heavy Fabrication · Maintenance and Repair	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack
GMM MIG 410NiMo	**ER410NiMo**	Modified from 410 stainless steel to contain less chromium, more nickel and added molybdenum to eliminate ferrite in the microstructure and improve the mechanical properties of the weld deposit. 410NiMo is used for welding of similar martensitic and martensitic-ferritic steels in different applications such as for instance hydro turbines. Recommend using preheat and inter-pass temperature of not less than 300ºF. Post weld heat treatment should not exceed 1150ºF, higher temperature may result in hardening.	• Water & Steam turbines • Heavy Fabrication	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack
GMM MIG 430L	**ER430L**	ER430 is a ferritic stainless steel which offers good ductility in heat treated condition. In addition to the applications of welding similar alloys, it is also used for overlays and thermal spraying.	· Automobile · Exhaust system	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack
GMM MIG NiCrMo-3	**ER NiCrMo-3**	ER NiCrMo-3 is used primarily for gas tungsten and gas metal arc and matching composition base metals. It is also used for welding Inconel 601 and Incoloy 800. It can be used to weld dissimilar metal combinations such as steel, stainless steel, Inconel and Incoloy alloys. Weld deposit exhibits high strength, exceptional corrosion resistance including resistance to pitting and crevice corrosion over a broad temperature range from cryogenic up to 1800°F.	· For cladding in Oil & Gas industries · Casting · Maintenance and repairs	· 1 Kg/2lbs – SD100 · 5 Kg/10lbs – SD200 · 15Kg/25lbs/33lbs - SD300/BS300 · 100 Kg – Drum Pack · 250 Kg – Drum Pack

Stainless steel TIG wire				
PRODUCT NAME	**AWS/SFA CLASS**	**DESCRIPTION**	**APPLICATION**	**PACKING INFORMATION**
GMM TIG 308L	**ER308L**	ER308L carbon content has been held to a maximum of .03% to reduce the possibility of intergranular carbide precipitation. ER308L is ideal for welding Types 304L, 321, and 347 stainless steels. This is a suitable wire for applications at cryogenic temperatures.	· Pipeline & Tubes · Chemical Plants · Food processing plant · Boiler · Cryogenic applications · Railways wagons	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG 308LSi	**ER308LSi**	ER308LSi has been held to a maximum of 0.03% to reduce the possibility of intergranular carbide precipitation and Si increase to 0.65% to 1.00%. ER308LSi is ideal for welding Types 304L, 321, and 347 stainless steels.	· Pipeline & Tubes · Chemical Plants · Food processing plant · Boiler · Cryogenic applications · Railways wagons	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG 316L	**ER316L**	ER316L filler metal is primarily used for welding low carbon molybdenum-bearing austenitic alloys. Good resistance to general and, owing to low C content, intergranular corrosion. The Mo content gives good resistance also to pitting. The 2% molybdenum content of 316L gives the weld deposit excellent corrosion resistance at elevated temperatures against “pitting” that may be caused by sulfuric, phosphoric and acetic acids.	· Gas pipeline & Tubes · Chemical Plants · Paper & Ink plant · Acid tanks · Paint Industries · Textile Industries	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG 316LSi	**ER316LSi**	ER316L filler metal is primarily used for welding low carbon molybdenum-bearing austenitic alloys. Good resistance to general and, owing to low C content, intergranular corrosion. Higher Si % provide good weld beads. The Mo content gives good resistance also to pitting. The 2% molybdenum content of 316L gives the weld deposit excellent corrosion resistance at elevated temperatures against “pitting” that may be caused by sulfuric, phosphoric and acetic acids.	· Gas pipeline & Tubes · Chemical Plants · Paper & Ink plant · Acid tanks · Paint Industries · Textile Industries	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG 307Si	**307Si (1.4370)**	GMM TIG 307Si is a solid wire electrode for GTAW, intended for welding work-hardenable steels, Armor steel and austenitic stainless manganese steels. Also suitable for joining stainless chromium steels with chromium content up to 17% and overlay welding of mild steels and low-alloy steels. GMM TIG 307Si is similar to ER 307 type with increased manganese content (≈ 6.0%), reducing the risk for hot cracking.	· Defence Industries · Armor steel Plates · Railways coach · Automobile · Mining equipment	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG 309L	**ER309L**	The alloy is also used for welding of buffer layers on C-Mn steels and welding of dissimilar joints. When using the wire for buffer layers and dissimilar joints it is necessary to control the dilution of the weld .The maximum carbon content of less than 0.03% preserves the intergranular corrosion resistant properties of the weld deposit and weld zone, Yielding x-ray quality welds.	· Defence Industries · Railways wagon · Power plants · Automobile · Mining equipment	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG 309LSi	**ER309LSi**	The alloy is also used for welding of buffer layers on C-Mn steels and welding of dissimilar joints. When using the wire for buffer layers and dissimilar joints it is necessary to control the dilution of the weld .The maximum carbon content of less than 0.03% preserves the intergranular corrosion resistant properties of the weld deposit and weld zone, Yielding x-ray quality welds. The higher silicon content improves the welding properties, such as wetting.	· Defence Industries · Railways wagon · Power plants · Automobile · Mining equipment	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG 310	**ER310**	ER 310 is used for welding types AISI 310, 304 clad stainless steel, ferritic and martensitic chromium steels, and for stainless steel overlay work on mild and carbon steels. 310 welding wire produces weld deposits of high strength and high resistance to scalling at elevated temperatures. Scaling resistant ferritic chromium steels, provided that corrosion attack by reducing sulphur-bearing combustion gases is not be expected. Weld metal exhibits good toughness down to -196°C and non-scaling up to 1200°C.	· Industrial furnaces and equipment · Cement plants · Steel industries · Heat exchanger	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG 312	**ER312**	ER312 is used to weld cast alloys of similar composition and is used to weld dissimilar metals and weld overlays. This alloy has very high ferrite. When welding similar cast alloys, limit welding to two or three layers only. Two-phase weld deposit with substantial amounts of ferrite in an austenitic matrix makes it highly resistant to weld metal cracking or fissures. Weld deposits are ductile, with good root penetration.	· Hard facing applications · Armor steel Plates · Tools & Dies · Spring steel · Repair works	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)

GMM TIG 347Si	**ER347Si**	ER347Si is recommended for welding AISI 347 and 321. The weld metal has good resistance to general corrosion. The alloy is stabilized with Niobium to improve the resistance against intergranular corrosion of the weld metal. The higher silicon content improves the welding properties, such as wetting. Due to the niobium content this alloy is recommended for use at higher temperatures ER347Si is suitable for applications where welds are subjected to high temperatures (+ 750ºF).	· Food & Beverages industries · Chemical Plants · Pharmaceutical industries · Oil refineries · Steam valves & fitting	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG 385	**ER385**	A high alloy “super austenitic” stainless steel originally called 904L and containing extra low residual elements of carbon, silicon, phosphorus and Sulphur – which reduces weld metal hot cracking and fissuring while maintaining corrosion resistance of the deposit. ER385 filler metal may also be used to join Type 317L material where improved corrosion resistance in specific media is needed. The resistance and crevice corrosion is better than for ordinary 18% Cr, 8% Ni, Mo steels.	· Flue gas desulphurization plants · Fertilizer plants · Paper industries · Petrochemical · Sea water transfer fittings · Water treatment plants	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG 2209	**ER2209**	ER2209 is intended to weld duplex stainless steels. It exhibits high tensile strength and resistance to stress and corrosion cracking. Exhibits a low ferrite. Weld deposit has an austenite and ferrite microstructure which classifies 2209 as a “duplex stainless”. In media containing chloride and hydrogen sulphide the alloy has a high resistance to intergranular, pitting and especially to stress corrosion.	· Acid tanks & pipes · Fertilizer plants · Paper industries · Petrochemical · Desalination industries	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG 2594	**ER2594**	A super-duplex grade provide the optimum ferrite/austenite ratio in the finished weld resulting in high tensile and yield strength and superior resistance to stress corrosion, cracking (SCC) and pitting corrosion. Pitting Resistance Equivalent Number (PREN) above 40 indicates superior pitting corrosion resistance in aqueous chloride containing service conditions as well as good resistance against stress corrosion cracking.	· Power Plants · Fertilizer plants · Paper industries · Petrochemical · Desalination industries	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG 410	**ER410**	410 is an air-hardening 12% chromium stainless steel for welding types 403, 405, 410, 414, and 416. Also an overlay on carbon steels for corrosion, erosion and abrasion resistance. Weld deposits exhibit good strength and ductility as well as corrosion and oxidation resistance at high temperatures. Preheating and an inter-pass temperature of not less than 200°C is recommended to achieve adequate ductility.	· Water & Steam turbines · Heavy Fabrication · Maintenance and Repair	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG 410NiMo	**ER410NiMo**	Modified from 410 stainless steel to contain less chromium, more nickel and added molybdenum to eliminate ferrite in the microstructure and improve the mechanical properties of the weld deposit. 410NiMo is used for welding of similar martensitic and martensitic-ferritic steels in different applications such as for instance hydro turbines. Recommend using preheat and inter-pass temperature of not less than 300ºF. Post weld heat treatment should not exceed 1150ºF, higher temperature may result in hardening.	• Water & Steam turbines • Heavy Fabrication	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG 430L	**ER430L**	ER430 is a ferritic stainless steel which offers good ductility in heat treated condition. In addition to the applications of welding similar alloys, it is also used for overlays and thermal spraying.	· Automobile · Exhaust system	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)
GMM TIG NiCrMo-3	**ER NiCrMo-3**	ER NiCrMo-3 is used primarily for gas tungsten and gas metal arc and matching composition base metals. It is also used for welding Inconel 601 and Incoloy 800. It can be used to weld dissimilar metal combinations such as steel, stainless steel, Inconel and Incoloy alloys. Weld deposit exhibits high strength, exceptional corrosion resistance including resistance to pitting and crevice corrosion over a broad temperature range from cryogenic up to 1800°F.	· For cladding in Oil & Gas industries · Casting · Maintenance and repairs	· 1 Kg/2lbs – Tube · 5 Kg/10lbs – Tube · 20Kg/40lbs - Box (4 Tubes)

		DESCRIPTION	APPLICATION	Grades	SIZE RANGE	PACKING INFORMATION
Non-welding wire	**Soft annealed wires**	Soft annealed stainless steel wires is the softest temper of all stainless steel wires. Soft annealed stainless steel wire is heat treated (annealed) to soften it & making it more malleable. The processes of annealing is carried in a furnace to temperatures greater than 1040 degrees Celsius for a period of time while it softens and it is then allowed to cool. The ductility is then very high, with a lower tensile strength. We manufactures wire in a bright or matt finish surfaces. It has good anti-corrosion and anti-oxidation in application.	Re-drawing to lower sizes Poultry farming Fencing Farming Conveyor belt Wire rope industries	AISI 304, AISI 304L, AISI 302, AISI 202, AISI 316, AISI 316L, AISI 321, 310, ER308L/LSi, ER316L/LSi, ER309L/LSi etc	1.20 mm to 4.50 mm	40 Kg - 800 Kg in Coil
	Half hard wires	Half hard wires has high mechanical strength. Half-hard wire is slightly stiffer than dead soft wire. Half-hard wire is excellent for making tight, angular bends, for making loops in wire, and for wrapping wire around itself. We manufactures wire in a bright or matt finish surfaces.	Kitchen gadgets Framing Poultry farming	AISI 304, AISI 304L, AISI 302, AISI 202, AISI 316, AISI 316L, AISI 321, 310, etc	1.20 mm to 4.00 mm	40 Kg - 800 Kg in Coil
	Quarter hard wires	Quarter hard stainless steel wire is malleable; however, it will maintain an intricate shape under moderate stress. Quarter hard stainless steel wire is slightly stiffer than dead soft wire. We manufactures wire in a bright or matt finish surfaces.	Electrode industries Chain & links Poultry farming Conveyor belt	AISI 304, AISI 304L, AISI 302, AISI 202, AISI 316, AISI 316L, AISI 321, ER 310, ER312, ER308L, ER316L, ER309L, ER430 etc	1.20 mm to 4.00 mm	40 Kg - 800 Kg in Coil
	Mesh wires	Stainless steel Mesh wire is soft temper and has good anti-corrosion and anti-oxidation in application. We manufactures wire in a bright or matt finish surfaces. Our wire is suitable of Knitted and welding both type of Mesh.	Wire mesh industries Poultry farming Fencing Farming	AISI 304, AISI 304L, AISI 302, AISI 202, AISI 316, AISI 316L, AISI 321, 310, etc	1.20 mm to 4.00 mm	40 Kg - 800 Kg in Coil
	Nails wire	Stainless steel Nails wire has good anti-corrosion and anti-oxidation in application. The wire has perfect hardness for nails and Screws. Nails are mostly used in construction industries. We offers different - different sizes and grades for different types of Nails.	Nails & Screw industries Chain & links Kitchen gadgets	AISI 304, AISI 304L, AISI 302, AISI 202, AISI 316, AISI 316L, AISI 321, 310, etc	1.20 mm to 4.00 mm	40 Kg - 800 Kg in Coil
	EPQ wires	We provide Mirror finish Bright EPQ wire with special cleaning method. The wire made in Greased and Degreased for different application. The wire has good anti-corrosion and anti-oxidation in application.	Kitchen gadgets Chain & links	AISI 304, AISI 304L, AISI 202, AISI 316, AISI 316L, , etc	1.20 mm to 4.00 mm	40 Kg - 800 Kg in Coil

	DESCRIPTION	APPLICATION	Grades	SIZE RANGE	PACKING INFORMATION
Stainless Steel Core Wire	We offer excellent quality Stainless Steel Core Wire for Electrode manufacturing. Our Core Wire is uniform in size, burr-free, round and straight. It is very suitable for extrusion and gives the perfect electrode quality. We have various grades and sizes options in the core wire.	Electrode industries	ER 308L ER 309L ER 309LMo ER 309Mo ER 316L ER 310 ER 312 ER 317 ER 317L ER 318 ER 347 ER 385 ER 321 ER 410 ER 410NiMo ER 430/430L ER 2209 ER 2594 ER NiCrMo-3	Diametre- 2.00 mm - 5.00 mm, Length- 300 mm - 450 mm	500 Kg - 1000 Kg in Box