



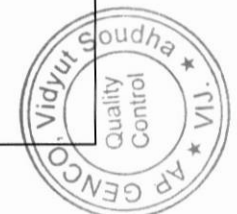
ANDHRA PRADESH POWER GENERATION
CORPORATION LIMITED
QUALITY CONTROL WING

DOC.NO.
REV.NO. 00
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APG-Welding
Electrodes

RATIONALISED LIST OF WELDING CONSUMABLES FOR SITE USE

S NO	TYPE	BRAND NAME	MANUFACTURER	LOCATION	REMARKS
[1]	SMAW ELECTRODES FOR STRUCTURES				
1(A)	E6013				
1	E6013	AARYA-13	Aarya Electrodes (P) Ltd.	Agra.	Rutile electrode for welding Non-pressure parts of mild and low carbon steels.
2	E6013	SUNWELD	Abirami Electrodes	Coimbatore	
3	E6013	METALBOND	Ador Welding Ltd.	Pune	
4	E6013	LG	Alpha Welding & Allied	Bangalore	
5	E6013	ALPHA 6013	Alpha Arc (P) Ltd	Ghaziabad	
6	E6013	WELDER - G	Alpha Flux &Eletrodes	Trichy District	
7	E6013	SUN LINE 27	AnnaiSivakamiAmmal Industries	Tiruchirapally	
8	E6013	AWT E6013	Atharve Welding Technologies (I)	Solapur	
9	E6013	B&H ULTRA	B&H Electrodes (P) Ltd	Mohali	
10	E6013	MONARC-S	Bagherwal Electrodes (P) Ltd.	Indore	
11	E6013	SONY ARC E6013	Balaji Electrodes	Coimbatore.	
12	E6013	A-ONE E6013	Bright Weld Technologies	Coimbatore.	
13	E6013	SHIVA-S	Calcutta Electrodes (P) Ltd.	Raipur	
14	E6013	CLASSIC 6013 PLUS.	Classic Electrodes (India) Ltd.	Kolkata	
15	E6013	ATLAS-13	Cosmos Electrodes (P) Ltd	Indore	
16	E6013	Standard	D&H India Ltd.	Indore	
17	E6013	Medio	D&H Secheron Electrodes (P) Ltd	Indore	
18	E6013	Norma	D&H Secheron Electrodes (P) Ltd	Indore	
19	E6013	ELMARK 11	Elmarc Electrodes (P) Ltd.	Chennai	
20	E6013	ESAB Vordian	Esab India Ltd	Chennai	
21	E6013	ESAB Ferrospeeds Plus	Esab India Ltd	Chennai	
22	E6013	NUMBER ONE	Eureka Systems And Electrodes (P) Ltd	Coimbatore	
23	E6013	MECA E6013	Fine Weld Electrodes India (P) Ltd.	Coimbatore	
24	E6013	Electra 9	Fusion Engg. Products Ltd.	Gamaria	
25	E6013	ELECTRA-6	Fusion Engg. Products Ltd.	Gamaria	
26	E6013	GEECON PINK	Gee Ltd.	Kalyan (W)	
27	E6013	Gricon black	Gee Ltd.	Kalyan (W)	
28	E6013	Regular-S	Honavar Electrode (P) Ltd	Mumbai	
29	E6013	IDEAL 40	Ideal Electrodes	Coimbatore.	
30	E6013	SUN WELD 6013	Jain Welding Electrodes (P) Ltd	Kota	
31	E6013	DU-ROD 11	Jindal Duroweld	Rourkela.	
32	E6013	CROWN 13S	K.M.Crown Welding Consumables (P)	Dewas	
33	E6013	KELARC 6013	Kollipara Electrodes (P) Ltd.	Krishna Dist.	
34	E6013	MAGNARC 63	Magnarc Electrodes (P) Ltd.	Visakhapatnam	
35	E6013	MAILARC 13R	Mailam India Ltd.	Pondicherry	



S NO	TYPE	BRAND NAME	MANUFACTURER	LOCATION	
36	E6013	MANGALAM E 6013	Malu Electrodes (P) Ltd.	Nagpur	Rutile electrode for welding Non-pressure parts of mild and low carbon steels
37	E6013	MANTEK GP-13.	MantekElectrods (P) Ltd	Trichy	
38	E6013	MARUTHI 6013X-	Maruthi Electrodes (P) Ltd.	Bangalore	
39	E6013	Maruti-44	Maruti Weld Ltd.	New Delhi	
40	E6013	MEGA E6013	Mega Weld Technologies	Coimbatore	
41	E6013	MICRO-6013	Micro Weld (India)	Ludhiana	
42	E6013	MIGLANI ARK-X	Miglani Engineers	Haridwar.	
43	E6013	Steelon Standard	Modi Arc Electrodes Co	Ghaziabad	
44	E6013	GM 20	ModiHitech India Ltd.	New Delhi	
45	E6013	MEDAL ARC	Nivetha Electrodes	Tiruchirapally	
46	E6013	EKNOWELD	Nucor Weld(India)(P) Ltd.	Bangalore	
47	E6013	GALA WELD	Orange Electrodes Industries	Asangaon	
48	E6013	SUN ARC X - 19	Orion Wire Manufacturing Co.	Bharuch	
49	E6013	ANAND-13	P.R.Industries	Kota	
50	E6013	RATNA 6013X	Raajratna Electrodes Ltd	Ahmedabad	
51	E6013	RAJCORD-13S	Raj Kesari Electrodes	Udaipur	
52	E6013	RASI E6013	Rasi Electrodes Ltd.	Chennai	
53	E6013	ROYAL S	Royal Arc Electrodes (P) Ltd	Thane	
54	E6013	JACKSON 5	Royal Welding Wires (P) Ltd.	Kanchipuram	
55	E6013	BALAJI	Rukhmani Electrodes (P) Ltd.	Kolkata	
56	E6013	KAYNOZ 7S	Seth Electrodes (P) Ltd.	Khurai	
57	E6013	ESL' ARC-62	Shieldarc Equipments (P) Ltd	Kolkata	
58	E6013	VATSARC 19 PLUS.	Solarc Weld Rods	Chennai	
59	E6013	SUDO 6013	Spectra Super Alloys Ltd	Jamshedpur	
60	E6013	SUNSHINE E6013	Sri Renga Electrodes (P) Ltd	Trichy	
61	E6013	BLAZE ARC	Sri Varsha Electrodes	Chennai	
62	E6013	SUN GP 13	Sun Electrode	Tanjore.	
63	E6013	SUNCRAFT E6013	Suncraft Electrodes	Musiri	
64	E6013	SUNDEEP S	Sundeeep Electrodes (P) Ltd.	Hapur	
65	E6013	OVERCORD S	SuperonSchweisstechnik (I) Ltd	Haryana	
66	E6013	UPARC E6013	Uparc Electrodes Company.	Meerut.	
67	E6013	BEST ARC MS11-	V.N.C.Electrodees	Karur	
68	E6013	PRIMA-6013S	Varun Electrodes (P) Ltd.	Panipat	
69	E6013	VICTOR 6013 PLUS	Victor Electrodes Ltd.	New Delhi	
70	E6013	Speedarc	Voltarc Electrode (P) Ltd	Tirupathi	
71	E6013	WA-6013-S	Weld Alloy Products Ltd.	G Noida	
72	E6013	WELDALL	Weldall Electrodes (India)	Dist. Nagpur.	
73	E6013	NOVAX - 13	Weldcom Electrodes (P) Ltd.	Surat	
74	E6013	MAXIMA-6013X	Weldcraft Private Ltd.	Bangalore.	
75	E6013	WELDFAST SUPER	Weldwell Electrodes	Nagpur	



S NO	TYPE	BRAND NAME	MANUFACTURER	LOCATION	
LOW HYDROGEN SMAW ELECTRODES FOR STRUCTURES					
1(B)	E7018				
1	E7018	SUPABASE 7018	Ador Welding Ltd	Pune	Basic coated low hydrogen electrodes for welding of thick sections in structural steels.
2	E7018	SUPER WELD 7018	Alpha Flux &Eletrodes	Trichy District	
3	E7018	MONOTHERME	Bagherwal Electrodes (P) Ltd.	Indore	
4	E7018	SHIVATHERME-18	Calcutta Electrodes (P) Ltd.	Raipur	
5	E7018	CLASSIC LH-7018	Classic Electrodes (India) Ltd.	Kolkata	
6	E7018	EUTHERME LH	Eureka Systems And Electrodes P.Ltd	Coimbatore	
7	E7018	MAGNAARCH LH	Magnarc Electrodes (P) Ltd.	Visakhapatnam	
8	E7018	MAGNA-8	Magna Engineers	Vijaywada	
9	E7018	MANGALAM E 7018	Malu Electrodes (P) Ltd.	Nagpur	
10	E7018	SUPERIAL LH E7018	Murli Electrode (P) Ltd	Nagpur	
11	E7018	RATNA 7018	Raajratna Electrodes Ltd	Ahmedabad	
12	E7018	REPL 7018	Rukhmani Electrodes (P) Ltd.	Kolkata	
13	E7018	SUPRADYNE	Solarc Weld Rods	Chennai	
14	E7018	SUDO 7018	Spectra Super Alloys Ltd	Jamshedpur	
15	E7018	ISWP SPARK 7018	The Indian Seel& Wire Products Ltd	Jharkand	
16	E7018	BESTARC-LH-18	V.N.C.Electrodees	Karur	
17	E7018	VJ-7018	Vijey Electrodes And Wires (P) Ltd.	Chennai	
18	E7018	MAXIDURE-7018	Weldcraft Private Ltd.	Bangalore	



S NO	TYPE	BRAND NAME	MANUFACTURER	LOCATION	
[2]	LOW HYDROGEN SMAW ELECTRODES FOR PRESSURE PART				
2(A)	E7018				
1	E7018	ALPHA 7018	Alpha Arc (P) Ltd	Ghaziabad	Basic coated low hydrogen electrodes for welding of thick sections in structural steels & Pr. Parts.
2	E7018	ANAND THERME	Anand Arc Ltd.	Chennai	
3	E7018	SUPRA MAX-18	Cosmos Electrodes (P) Ltd	Indore	
4	E7018	SUPER LH	D&H India Ltd.	Indore	
5	E7018	SUPRATHERME	D&H Secheron Electrodes (P) Ltd.	Indore	
6	E7018	DK-18	Dwekam Electrodes Ltd	Indore	
7	E7018	ESAB-36H	Esab India Ltd	Chennai	
8	E7018	BASICOTE 6	Fusion Engg. Products Ltd.	Gamaria	
9	E7018	GRICON GREEN	Gee Ltd.	Kalyan (W)	
10	E7018	ULTIMATE - 18.	Honavar Electrodes (P) Ltd.	Mumbai	
11	E7018	CROWN-18	K.M.Crown Welding Consumables (P)	Dewas	
12	E7018	KELARC-7018	Kollipara Electrodes (P) Ltd.	Krishna Dist.	
13	E7018	MAIL ARC 18	Mailam India Ltd.	Pondicherry	
14	E7018	MANTEK LH 18	MantekElectrods Private Ltd	Trichy	
15	E7018	MARUTHI 7018	Maruthi Electrodes (P) Ltd.	Bangalore	
16	E7018	ULTRA - 7018	Maruti Weld Private Ltd.	New Delhi	
17	E7018	MODI 7018	Modi Arc Electrodes Co.	Ghaziabad	
18	E7018	GM 18	ModiHitech India Ltd.	New Delhi	
19	E7018	EKNOWELD	Nucor Weld(India)(P) Ltd.	Bangalore	
20	E7018	SUPERLET - 18.	Raj Kesari Electrodes	Udaipur	
21	E7018	RASI 7018LH	Rasi Electrodes Ltd.	Chennai	
22	E7018	ROYAL THERME	Royal Arc Electrodes (P) Ltd	Thane	
23	E7018	JACKSON 18H	Royal Welding Wires (P) Ltd.	Kanchipuram	
24	E7018	SUNSHINE - 18	Sri Renga Electrodes (P) Ltd	Trichy	
25	E7018	SUNDEEP 7018	Sundeeep Electrodes (P) Ltd.	Hapur	
26	E7018	SUPERCITO	SuperonSchweisstechnik (I) Ltd	Haryana	
27	E7018	SEVEN ARCS-18	Thirumala Electrodes Co.	Trichy	
28	E7018	PRIMA7018	Varun Electrodes (P) Ltd.	Panipat	
29	E7018	Supercarc	Voltarc Electrodes (P) Ltd	Tirupathi	
30	E7018	WA 7018	Weld Alloy Products Ltd.	G Noida	
31	E7018	EXCEL-18	Weld Excel India Ltd.	Ludhiana	
32	E7018	WELDFAST LH-18	Weldwell Electrodes	Nagpur	



S NO	TYPE	BRAND NAME	MANUFACTURER	LOCATION	
2(B)	E7018-1				
1	E7018-1	Supra ThermeSpl.	D&H Secheron Electrodes (P) Ltd.	Indore	Low Hydrogen iron powder electrode recommended for welding pressure parts of carbon steels.
2	E7018-1	ESAB 36H Spl	Esab India Ltd.	Chennai	
3	E7018-1	GEE SPL.	Gee Ltd.	Kalyan (W)	
4	E7018-1	Ultimate-18 SPL	Honavar Electrodes (P) Ltd.	Mumbai	
5	E7018-1	MAILARC-18PLUS	Mailam India Ltd.	Pondicherry	
6	E7018-1	MODI 7018 SPL	Modi Arc Electrodes Co.	Ghaziabad	
7	E7018-1	VJ 7018-1	Vijey Electrodes And Wires (P)	Chennai	
[3]	ALLOY STEEL SMAW ELECTRODE				
3(A)	E7018-A1				
1	E7018-A1	Molytherme	D&H Secheron Electrodes (P) Ltd	Indore	Low hydrogen electrode used for pressure parts of ½ Mo material
2	E7018-A1	MODI-7018-A1	Modi Arc Electrodes Co.	Ghaziabad	
3	E7018-A1	ULTIMATE 18A1	Honavar Electrodes (P) Ltd.	Mumbai	
4	E7018-A1	RAJWELD-18A1	Raj Kesari Electrodes	Udaipur	
3(B)	E8018-B2				
1	E8018-B2	Cromotherme - 1	D&H Secheron Electrodes (P) Ltd	Indore	Low hydrogen electrode used for welding pressure parts of 1Cr ½ Mo.
2	E8018-B2	GRIDUCT3	Gee Ltd.	Kalyan (W)	
3	E8018-B2	ULTIMATE-80-B2	Honavar Electrodes Ltd.	Mumbai	
4	E8018-B2	MAILARC 1CR	Mailam India Ltd.	Pondicherry	
5	E8018-B2	MANTEK CROMO 1	MantekElectrods Private Ltd	Trichy	
6	E8018-B2	ULTRA-CR-1	Maruti Weld Private Ltd.	New Delhi	
7	E8018-B2	MODI-8018-B2	Modi Arc Electrodes Co.	Ghaziabad	
8	E8018-B2	GM 80-B2	ModiHitech India Ltd.	New Delhi	
9	E8018-B2	RAJWELD-8018B2	Raj Kesari Electrodes	Udaipur	
10	E8018-B2	VJ-8018-B2	Vijey Electrodes And Wires (P)	Chennai	
3(C)	E9018-B3				
1	E9018-B3	SUPER - CR - 2	D&H India Ltd.	Indore	Low hydrogen 2¼ Cr, 1 Mo electrode used for welding pressure parts of similar material composition and ½ Cr ½ Mo¼ V Steels.
2	E9018-B3	Cromotherme - 2	D&H Secheron Electrodes (P) Ltd	Indore	
3	E9018-B3	GRIDUCT - 4	Gee Ltd.	Kalyan (W)	
4	E9018-B3	ULTIMATE-90B3	Honavar Electrodes Ltd.	Mumbai	
5	E9018-B3	MAILARC 2CR	Mailam India Ltd.	Pondicherry	
6	E9018-B3	ULTRA - CR-2	Maruti Weld Private Ltd.	New Delhi	
7	E9018-B3	MODI-9018B3	Modi Arc Electrodes Co.	Ghaziabad	
8	E9018-B3	GM 90 B3	ModiHitech India Ltd.	New Delhi	
9	E9018-B3	VJ-9018-B3	Vijey Electrodes And Wires (P)	Chennai	



3(D)	E9015-B9				
S NO	TYPE	BRAND NAME	MANUFACTURER	LOCATION	REMARKS
1	E9015-B9	CROMO E91	Air-Liquide Welding France	France	Electrodes for
2	E9015-B9	CM-95B9	Kanematsu Trading Corporation	Japan	T91/P91/F91 tubes,
3	E9015-B9	CHROMET 9MV-N	Metrode Products Ltd.	UK	pipes & forgings as per
4	E9015-B9	THERMANIT MTS - 3	VoestalpineBohler Welding	Germany	ASME.
[4]	ALLOY STEEL FILLER RODS FOR GTAW (TIG WELDING)				
4(A)	ER80S-D2				
1	ER80S-D2		Alconix Corporation	Japan	Used for welding tubes
2	ER80S-D2	TG-SM	Kanematsu Trading Corporation	Japan	for Carbon and ½ Mo
3	ER80S-D2	MnMo	Metrode Products Ltd.	UK	Steels in pressure
4	ER80S-D2	Union 1 Mo Mn	VoestalpineBohler Welding	Germany	parts.
4(B)	ER80S-B2				
1	ER80S-B2	TIGFIL 80S -B2	Ador Welding Ltd.	Pune	Used for welding
2	ER80S-B2	F CR MO 1	D&H Secheron Electrodes (P) Ltd.	Indore	pressure parts of
3	ER80S-B2	INETIG B2	IndustriaNazionaleElettrodi S.P.A	Italy	similar materials.
4	ER80S-B2	TG-S1CM	Kanematsu Trading Corporation	Japan	
5	ER80S-B2	MARUTHI TB2	Maruthi Electrodes (P) Ltd.	Bangalore	
6	ER80S-B2	METRODE ER80S-B2	Metrode Products Ltd.	UK	
7	ER80S-B2	Union 1 Cr Mo	VoestalpineBohler Welding	Germany	
4(C)	ER90S-B3				
1	ER90S-B3	TIGFIL 90S - B	Ador Welding Ltd.	Pune	Used for welding
2	ER90S-B3	INETIG B3	IndustriaNazionaleElettrodi S.P.A	Italy	pressure parts of 2¼
3	ER90S-B3	TG-S2CM	Kanematsu Trading Corporation	Japan	Cr 1Mo and ½ Cr ½ Mo
4	ER90S-B3	MARUTHI TB3	Maruthi Electrodes (P) Ltd.	Bangalore	¼ V Steels
5	ER90S-B3	METRODE ER90S-B3	Metrode Products Ltd.	UK	
6	ER90S-B3	UNION ER 90 S-B3	VoestalpineBohler Welding	Germany	



S NO	TYPE	BRAND NAME	MANUFACTURER	LOCATION	REMARKS
4(D)	ER90S-B9				
1	ER90S-B9	CARBOROD CrMo91	Air-Liquide Welding France	France	TIG welding rods for T91/P91 tubes & pipes as per ASME.
2	ER90S-B9	TG-S90B9	Kanematsu Trading Corporation	Japan	
3	ER90S-B9	9CRMOV-N TIG	Metrode Products Ltd.	UK	
4	ER90S-B9	THERMANIT MTS 3	VoestalpineBohler Welding	Germany	
[5]	STAINLESS STEEL SMAW ELECTRODES				
5(A)	E308-16				
1	E308-16	Superinox -1A	Ador Welding Ltd.	Pune	Stainless steel electrode used for welding 304 and 308 materials
2	E308-16	Rutox A	D&H Secheron Electrodes (P) Ltd	Indore	
3	E308-16	OK 61.50	Esab India Ltd	Chennai	
4	E308-16	MAILEX-A	Mailam India Ltd.	Pondicherry	
5	E308-16	SS-308	Modi Arc Electrode Co.	Ghaziabad	
5(B)	E308L-16				
1	E308L-16	Rutox-B	D&H Secheron Electrodes (P) Ltd	Indore	Stainless steel electrode used for Welding SS-409M to
2	E308L-16	OK 61.30	Esab India Ltd	Chennai	
5(C)	E309-16				
1	E309-16	Cronitherme 25/12	D&H Secheron Electrodes (P) Ltd	Indore	25/12 stainless steel electrodes for welding stainless steel and
2	E309-16	SS-309	Modi Arc Electrodes Co.	Ghaziabad	
3	E309-16	OK 67.67	Esab India Ltd	Chennai	
5(D)	E309L-16				
1	E309L-16	D&H-309-L	D&H Secheron Electrodes (P) Ltd	Indore	Stainless steel electrode
2	E309L-16	OK 67.60	Esab India Ltd	Chennai	
5(E)	E310-16				
1	E310-16	Cronitherme 25/20	D&H Secheron Electrodes (P) Ltd	Indore	25/20 stainless steel electrodes for welding
2	E310-16	OK 67.13	Esab India Ltd	Chennai	

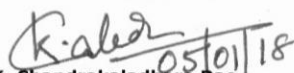


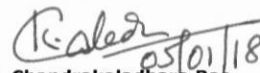
S NO	TYPE	BRAND NAME	MANUFACTURER	LOCATION	REMARKS
5(F)	E316-16				
1	E316-16	Rutox Mo	D&H Secheron Electrodes (P) Ltd	Indore	18/8 2% Mo type
2	E316-18	Cronical	Modi Arc Electrodes	Ghaziabad	stainless steel
3	E316-18	OK 63.50	Esab India Ltd	Chennai	electrode.
5(G)	E347-16				
1	E347-16	Superinox -1B	Ador Welding Ltd.	Pune	18/8 stabilized
2	E347-16	Rutox A (Stab)	D&H Secheron Electrodes (P) Ltd	Indore	stainless steel
3	E347-16	OK 61.80	Esab India Ltd	Chennai	electrode for welding
4	E347-16	MAILEX-Anb	Mailam India Ltd.	Pondicherry	308, 321 and 347
5	E347-16	SS-347	Modi Arc Electrodes Co.	Ghaziabad	stainless steel
5(H)	ENiCrFe3				
1	ENiCrFe3		Special Metals Welding Products	UK	Inconel-182 electrodes
2	ENiCrFe3		VoestalpineBohler Welding	Germany	for dissimilar welding
3	ENiCrFe3		D&H Secheron Electrodes (P) Ltd	Indore	& buttering.
[6]	STAINLESS STEEL FILLER RODS FOR GTAW (TIG WELDING)				
6(A)	ER308				
1	ER308	ER 308	D&H Secheron Electrodes (P) Ltd	Indore	Used for 304 and 308
6(B)	ER347				
1	ER347	ER 347	D&H Secheron Electrodes (P) Ltd.	Indore	Used for 304 and 308 stainless steel materials
2	ER347	TG-S347	Kanematsu Trading Corporation	Japan	
3	ER347	347S96	Metrode Products Ltd.	UK	
4	ER347	THERMANIT H347	VoestalpineBohler Welding	Germany	
6(C)	Super				
1	Super	YT-304H	Alconix Corporation	Japan	For TIG welding of
2	Super	THERMANIT 304 H	VoestalpineBohler Welding	Germany	Super 304H



S NO	TYPE	BRAND NAME	MANUFACTURER	LOCATION	REMARKS
6(D)	ERNiCr3				
1	ERNiCr3	TG-S70NCB	Kanematsu Trading Corporation	Japan	INCONEL 82 TIG RODS FOR PR. PART SS TO ALLOY STEEL
2	ERNiCr3	MARUTHY TNICR3	Maruthi Electrodes (P) Ltd.	Bangalore	
3	ERNiCr3	20.70.NB	Metrode Products Ltd.	UK	
4	ERNiCr3	YAWATA Filler 82	Nippon Steel Welding	Japan	
5	ERNiCr3	Y068 HH	UTP	Germany	
6	ERNiCr3	THERMANIT NICRO 82	VoestalpineBohler Welding	Germany	
NOTES					
1. IN CASE OF MAIN PLANT EQUIPMENTS LIKE BOILER, PR. PARTS AND TG, SPECIAL WELDING CONSUMABLES, IF ANY, SHALL BE AS PER OEM RECOMMENDATIONS.					
2. IF SEMI AUTOMATIC OR AUTOMATIC WELDING PROCESS ARE USED THEN WELDING CONSUMABLES SHALL BE AS PER OEM RECOMMENDATION ONLY.					

SIGN :
Date :
NAME:
DESIGN:

PREPARED BY

K. Chandrakaladhara Rao
Divisional Engineer/ QC

REVIEWED BY

K. Chandrakaladhara Rao
Divisional Engineer/ QC

APPROVED BY

L. Narasimhulu
Superintending Engineer/ QC

