




selectarc
Electrodes
For Chemical and
Petrochemical Industries



Electrodes for Chemical and Petrochemical Industries

In Chemical and Petrochemical Plants many high performance alloys are used. For construction and for repair welding, recommended electrodes of the Selectarc product range are listed in this short presentation.

Selectarc	Electrodes for Creep Resistant Cr/Mo Steels	
B60 E7018-A1 E Mo B 42	Basic coated electrode with 0.5%Mo Temperature resistant up to 500°C with good resistance against hydrogen attack. For boilers, vessels and pipe work.	P/T1 15Mo3 
B63 E8018-B2 E CrMo1 B 42	Basic coated electrode with 1.1Cr and 0.5%Mo Temperature resistant up to 550°C. For boilers, vessels, heat exchangers and pipe work.	P/T11 and P/t12 13CrMo4.4
B68 E9018-B3 E CrMo2 B 42	Basic coated electrode with 2.2 % Cr and 1 % Mo, creep resistant for service temperatures up to 600°C. Good resistance to hydrogen sulphide (H ₂ S) stress corrosion cracking. For hydro crackers, boilers, vessels, valve bodies, boiler, super heaters, heat exchangers and pipe work.	P/T22 10CrMo9.10 
B69 E8018-B6 E CrMo5 B 42	Basic coated electrode with 5 % Cr and 0.5 % Mo, creep resistant up to 600°C. Good resistance to super heated steam and hot hydrogen gas. For heat exchangers, boilers, vessels, boiler, super heaters, and pipe work.	P/T5 12CrMo19.5
B609 E8016-B8 E CrMo9 B 42	Basic coated electrode with 9 % Cr and 1 % Mo, creep resistant up to 600°C. Good resistance to super heated steam and hot gas. For power plant, heat exchangers, boilers, vessels, and pipe work.	P/T9 X12CrMo9-1
B94 ENiCrFe-2 E-Ni6092	Basic coated electrode with 150% recovery, for welding Nickel-Chromium-Iron alloys to themselves and to lower alloyed steels and high temperature steels. For dissimilar joints between CrMo-creep resistant steels and stainless steels. For the repair of HK and HP reformer grades.	Dissimilar Cr-Mo 


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	Electrodes for Corrosion resistant Stainless Steels	
20/10BC E308L-16 E19 9 L R 32	Rutile/basic coated stainless steel electrode with approx 8 % delta ferrite. For service temperatures from -120°C up to +350°C. For stainless steel fabrications such as containers, heat exchangers, piping systems.	304L 321 X2CrNi19-11 X6CrNiTi18-10
20/10MBC E316L-16 E19 12 3 L R32	Rutile/basic coated stainless steel electrode with approx 8 % delta ferrite. Good resistance against wet corrosion and gases (550°C), general corrosion applications. Resistant to intergranular corrosion up to 400°C service temperature. For general construction in the chemical, petrochemical and foodstuff industry, such as containers, piping systems.	316L 316Ti X2CrNiMo17-12-2 X6CrNiMoTi17-12-2
24/12S E309L-16 E23 12 L R32	Rutile/basic coated stainless steel electrode with approx 15 % delta ferrite. For welding of dissimilar joints - stainless to low alloyed steels.	
Inox 383 E383-16 E27 31 4 CuL R12	Rutile/basic coated austenitic stainless steel electrode for super austenitics such as alloy 28 and "URANUS 28"*. High corrosion resistance against sulphuric acid and phosphoric acid, up to 400°C. Offshore, acid production, Heat exchangers in refineries, oil and gas production.	N08028 28 X1NiCrMoCu31-27-4
Inox385 E385-16 E20 25 5 CuNL R12	Rutile/basic coated austenitic stainless steel electrode for austenitic alloys such as alloy 904L and "URANUS B6"*. Resistant to seawater, sulphuric and phosphoric acids up to 400°C. Transport and storage containers for acids, seawater desalination plants, pulp and paper industry.	N08904 904L X1NiCrMoCu25-20-5
Inox 2209 E2209-17 E22 9 3 NL R32	Rutile/basic coated Duplex type electrode (URANUS 45N)*, resistant to pitting and crevice corrosion in Cl-containing solutions like seawater. High yield and tensile strength. Pipes, pumps, centrifuges, valves, desulfurising towers.	S31803 X2CrNiMoN22-5-3

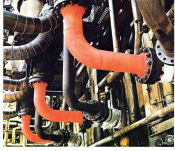



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<p>Inox 2509MoB E25 9 4 NL B42</p>	<p>Basic coated SuperDuplex type electrode (URANUS 52N+)*, Resistant to pitting and crevice corrosion in Cl-containing solutions such as seawater. PREN>40, higher corrosion resistance than Inox 2209, higher yield and tensile strength. Pipes, pumps, centrifuges, desulfurising towers.</p>	<p>S32550 S32760 52N 100 X2CrNiMoCuN25-6-3 X2CrNiMoCuWN25-7-4</p>
<p>Electrodes for High Temperature Applications</p>		
<p>Inox 308HB E308H-15 E19 9 H B42</p>	<p>Basic coated stainless steel electrode with increased carbon and ~5 % delta ferrite to weld alloy 304H. For service temperatures up to 750°C. Refineries, petrochemical industry.</p>	<p>304H X6CrNi18-11</p>
<p>Inox 253MA E22 12 B42</p>	<p>Basic coated austenitic and nitrogen alloyed electrode. Resistant to oxidation and H₂S up to 950°C. For alloys such as 253MA. Furnace parts, burners, waste incineration.</p>	<p>253MA S30815 X8CrNiSiN21-11</p>
<p>25/20R ~E310-16 E25 20 R32</p>	<p>Rutile/basic coated austenitic electrode resistant to oxidation and scale up to 1200°C. Ovens, heat treatment, superheaters.</p>	
<p>25/20B E310-15 E25 20 B42</p>	<p>Similar to 25/20 R, but basic coated.</p>	<p>310 X15CrNiSi25-20</p>
<p>Inox 310H E310H E25 20 H B42</p>	<p>Basic coated high carbon electrode, excellent corrosion resistance, used for service temperatures up to 1100°C to weld alloys such as HK40. Hydro cracker and steam reformer, furnace parts.</p>	<p>HK40 G-X40CrNiSi25-20</p>
<p>Inox21/33Mn Z21 33 Mn Nb B42</p>	<p>Basic coated electrode with 21Cr; 33Ni; 1,2Nb; 3,5Mn to weld heat resistant alloys resistant to scaling and oxidation up to 1050 °C.</p>	<p>800 N08800 X10NiCrAlTi32-20</p>
<p>Inox 25/35H Z25 35 Nb H B42</p>	<p>Basic coated high carbon austenitic electrode, for high temperature corrosion resistance, used for service temperatures up to 1200°C. To weld centrifugally cast alloys such as HK40 and HP45. Reformer tubes, pyrolysis coils.</p>	<p>HP45 N08705 G-X40NiCrSi35-25</p>

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<p>Ni 82 E-Ni6083 NiCr20Mn3Nb</p>	<p>Basic coated, nickel base electrode, corrosion and high temperature resistant. Chemical reactors, power generation plants, furnace equipment, cryogenic vessels, reformer tubes.</p>	<p>600-601 800H DS</p> 
<p>Ni 617 E NiCrCoMo-1 E-Ni6617 NiCr22Co12Mo</p>	<p>Basic coated high temperature nickel base electrode. Corrosion resistant in oxidising atmospheres, used at service temperatures up to 1100°C. Gas turbines, combustion chambers, furnaces.</p>	<p>601 617 NiCr23Fe NiCr23Co12Mo</p> 
<p>Electrodes for Corrosion Resistant Nickel alloys</p>		
<p>NiTi3 ENi-1 E-Ni2061 NiTi3</p>	<p>Basic coated nickel electrode with approx 1.6 % Ti to weld pure nickel. Resistant against corrosion in the presence of NaOH at temperatures up to 450°C. Evaporation of caustic soda, chlorination, salt and soap production, heat exchangers.</p>	<p>200 N02200 Ni99.2</p> 
<p>Ni190 E NiCu-7 E-Ni4060 NiCu30Mn3Ti</p>	<p>Basic coated Monel type electrode (70% Ni, 30% Cu) highly corrosion resistant against seawater and chlorides, salt solutions, hydrofluoric acid, sulphuric acid and alkaline. Piping systems, vessels, evaporators, petrochemical plants (distillation).</p>	<p>400 N04400 NiCu30Fe</p>
<p>Ni 182 ENiCrFe-3 E-Ni6182 NiCr15Fe6Mn</p>	<p>Basic coated nickel base electrode "Inconel 600" type. General trouble-shooter in fluctuating corrosion attacks (sulphuric acid, phosphoric acid, hydrochloric, salt, caustic soda). Exchanger, evaporator, condenser.</p>	<p>600 N06600 NiCr15Fe</p> 
<p>Ni 625 ENiCrMo-3 E-Ni6625 NiCr22Mo9Nb</p>	<p>Basic coated nickel base alloy 625 type electrode. Highly corrosion resistant against chlorides/seawater, sulphuric/phosphoric acid and oxidising solutions. For similar base metals and super austenitics. Desulfurisation plants, pipes, containers, agitators, valves.</p>	<p>625 N06625 NiCr22Mo9Nb</p>
<p>Ni 276 ENiCrMo-4 E-Ni6276 NiCr15Mo15Fe6W4</p>	<p>Basic coated nickel base alloy C-276 type electrode. Highly corrosion resistant in aggressive environments such as sulphuric acid with chlorides and oxidising solutions. Desulfurisation plants, pipes, containers, agitators, process equipment.</p>	<p>C-276 N10276 NiMo16Cr15W</p>