

Clad Plate Materials & Grades Used by Industry - Sample

Industry	Application	Stainless Steel											Duplex/Super Duplex				
		304/L	316/L	317/L	309	310	321	347	301	904L	6Mo/254S MO	405		410/S	1Cr13		
Oil & Gas Upstream	Flowlines & Pipelines	✓	✓	✓													
	Steel Catenary Risers		✓														
	Subsea Jumpers		✓														
	Slug Catchers		✓														
	Subsea Manifold Piping		✓														
	Topside Pressure Vessels & Separators	✓	✓														
	Topside Process Pipes & Fittings	✓	✓	✓													
Refineries, Petrochemical, Chemical	Splash Zone Sheathing																
	Towers & Columns																
	Coke Drums																
	Reactors																
Fertilizers	High Pressure Vessels, Drums and Separators																
	Storage Tanks																
	Reactors																
Heat Exchangers	Strippers																
	Pressure Vessels																
	Shell & Tube, Plate																
Power Generation	Plate Heat Exchangers																
	Thin Film Evaporators																
	Air Gas Coolers																
	Condensers																
FGD	Geothermal																
	Coal Gasification																
Desalination, Water Treatment	Hydroelectricity																
	Scrubbers, Chimneys																
	Evaporators																
	Water Boxes																
	Deaerators																
Pulp & Paper	Venting Systems																
	Steaming Vessels																
	Digesters																
	Bleaching																
	Impergnators																
	Evaporators/Boilers																
Shipbuilding	Tanks																
	Paper Machine																
Transition Joints	Chemical Tankers																
	Icebreakers																
	Structural Transition Joints																
Other Industries	Cryogenic Transition Joints																
	Electrical Transition Joints																
	Hydrometallurgy																
Food & Beverage	Polysilicon																
	Food & Beverage																
Industry	Application	Nickel Alloys										Other Metals & Alloys					
		600	625	800	825	C276	Monel 400	Ni 200	Alloy 20	Other Nickel Alloys*	Ti	Al & Al Alloys	Cu & Cu Alloys**	Zr	Ta		
Oil & Gas Upstream	Flowlines & Pipelines																
	Steel Catenary Risers																
	Subsea Jumpers																
	Slug Catchers																
	Subsea Manifold Piping																
	Topside Pressure Vessels & Separators																
	Topside Process Pipes & Fittings																
Refineries, Petrochemical, Chemical	Splash Zone Sheathing																
	Towers & Columns																
	Coke Drums																
	Reactors																
Fertilizers	High Pressure Vessels, Drums and Separators																
	Storage Tanks																
	Reactors																
Heat Exchangers	Strippers																
	Pressure Vessels																
	Shell & Tube, Plate																
Power Generation	Plate Heat Exchangers																
	Thin Film Evaporators																
	Air Gas Coolers																
	Condensers																
FGD	Geothermal																
	Coal Gasification																
Desalination, Water Treatment	Hydroelectricity																
	Scrubbers, Chimneys																
	Evaporators																
	Water Boxes																
	Deaerators																
Pulp & Paper	Venting Systems																
	Steaming Vessels																
	Digesters																
	Bleaching																
	Impergnators																
	Evaporators/Boilers																
Shipbuilding	Tanks																
	Paper Machine																
Transition Joints	Chemical Tankers																
	Icebreakers																
	Structural Transition Joints																
Other Industries	Cryogenic Transition Joints																
	Electrical Transition Joints																
	Hydrometallurgy																
Food & Beverage	Polysilicon																
	Food & Beverage																

\*B3, C22, Alloy 59

\*\*Cu-Ni