

# SHEATH MATERIAL COMPOSITION

Sheath Material	Chemical Composition														Notes				
	Al	C	Co	Cr	Cu	Fe	Mn	Mo	Ni	P	S	Si	Ta	Ti		V	W		
Steel—1010 Carbon		.08/.13				Bal	.3/.6			.04	.05								
<b>Stainless Steels</b>																			
304		.08		18/20		Bal	2		8/10.5	.045	.03	1							
316		.08		16/18		Bal	2	2/3	10/14	.045	.03	1							
316L		.03		16/18		Bal	2	2/3	10/14	.045	.03	1							
321		.08		17/19		Bal	2		9/12	.045	.03	1							
347		.08		17/19		Bal	2		9/13	.045	.03	1							
Carpenter 20Cb-3		.06		19/21	3/4	Bal	2	2/3	32/38	.05	.035	1							
																		Ti = 5 × C Cb + Ta = 10 × C  Cb + Ta = 1% max.	
<b>Nickel Alloys</b>																			
Incoloy 800	.38	.05		21	.38	Bal	.75		32.5		.008	.5		.38					
Incoloy 840		.08		18/22	.075	Bal	1		18/22		.015	1.0							
Monel 400		.15			Bal	1.25	1		66.5		.012	.25	.25						
Inconel 600		.08		15.5	.25	8	.5		76		.008	.25	.25						
																			Nickel + Cobalt = 76% min.