OMNI
PRECISION IN MOBILITY

Material Composition of Implants

Product Line	Component	CoCr (Cast)	CoCr (Wrought)	Ti-6Al-4V-ELI (Titanium Alloy)	Ti (Unalloyed)	Hydroxyapetite (HA)
APEX Knee™ System	Femoral Components	X				
	Primary Tibia Baseplate	X				
	Revision Tibia	X				
	Revision Stems & Keels			X		
	Tibial Augments	X				
	Tibia Pegs			X		
	Femoral Augments			X		
	Insert Retaining Bolts			X		
	Uncemented Tibia Trays	X			X	X
OMNIHIP™ Systems	CoCr Femoral Heads		X			
OMNI MOD™ Hip System	Femoral Stems		X	X	X	
	Modular Necks			X		
	Retaining Bolts			X		
OMNI K1™ Hip System	Femoral Stems			X	X	
OMNI K2™ Hip System	Femoral Stems		X	X	X	
	Modular Necks			X		
	Retaining Bolts			X		
OMNI ARC™ Hip System	Modular Stems			X	X	X
	Modular Necks		X			
	Monobloc Stem			X	X	X
Interface Acetabular™	Acetabular Shell			X		
OMNI BiPolar ™ Femoral Heads	Outer Shell	X				
Paragon Hip System	Femoral Stem			X		X
Misc	Cancellous Bone Screws			X		

Please see reverse side for material composition breakdown.

Metallic Composition, Percentage (Mass/Mass)

Element	Cobalt Chrome (Cast)		Cobalt Chrome (Wrought)						Titanium Alloy 6Al-4V ELI		Unalloyed Titanium "Commerical Pure Titanium"					
			Alloy 1 UNS R315537 (Low Carbon)		Alloy 2 UNS R31538 (High Carbon)		Alloy 3 UNS R31539 (Dispersion Strengthened)				Unalloyed Ti Powder[D]		Ti Sponge Powder[D]		Ti-6Al-4V Powder[F]	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Nickel	-	.50	-	1.00	-	1.00	-	-	-	-	-	-	-	-	-	-
Chromium	27.00	30.00	26.00	30.00	26.00	30.00	26.00	30.00	-	26.00	-	-	-	-	-	-
Molybdemum	5.00	7.00	5.00	7.00	5.00	7.00	5.00	7.00	-	5.00	-	-	-	-	-	-
Iron	-	0.75	-	0.75	-	0.75	-	0.75	-	0.25	-	0.50	-	0.15	-	0.30
Carbon	-	0.35	-	0.14	0.15	0.35	-	0.14	-	0.08	-	0.08	-	0.03	-	0.08
Silicon	-	1.00	-	1.00	-	1.00	-	1.00	-	-	-	-	-	0.04	-	-
Manganese	-	1.00	-	1.00	-	1.00	-	1.00	-	-	-	-	-	-	-	-
Tungsten	-	0.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorous	-	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfur	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrogen	-	0.25	-	0.25	-	0.25	-	0.25	-	0.05	-	0.05	0.02	-	-	0.05
Aluminum	-	0.10	-	-	-	-	-	1.00	5.50	6.50	-	-	-	0.05	5.50	6.75
Titanium	-	0.10	-	-	-	-	-	-	balance[C]	balance[C]	balance[C]	balance[C]	balance[C]	balance[C]	balance[C]	balance[C]
Boron	-	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	balance	balance	balance	balance	balance	balance	balance	balance	-	-	-	-	-	-	-	-
Lathanum	-	-	-	-	-	-	0.03	0.20	-	0.03	-	-	-	-	-	-
Hydrogen	-	-	-	-	-	-	-	-	-	0.012[B]	-	0.05	-	0.03	-	0.015
Oxygen	-	-	-	-	-	-	-	-	-	0.13	-	0.40	-	0.40[G]	-	0.20
Vanadium	-	-	-	-	-	-	-	-	3.50	4.50	-	-	-	-	3.50	4.50
Copper	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.10
Tin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.10
Chlorine	-	-	-	-	-	-	-	-	-	-	-	-	-	0.20[H]	-	-
Sodium	-	-	-	-	-	-	-	-	-	-	-	-	-	F	-	-
Yttrium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.005[C]

[A] Approximately equal to the difference of 100% and the sum percentage of the other specified elements. The percentage of the cobalt difference is not required to be reported.
[B] Material 0.032 in. (0.813 mm) and under may have hydrogen content up to 0.0150%.
[C] The percentage of titanium is determined by difference and need not predetermined or certified.
[D] Chemistry per Specification F67 except Hydrogen.
[E] Chemistry per Specification B299, general purpose grade.
[F] Chemistry per Specification F1472.
[G] Oxygen per Specification B299 is 0.15%. This level is reasonable for sponge product but not for powder because of the increased surface area of small particle powder product.
[H] Lower maximum chlorine content may be agreed upon between buyer purchaser and seller supplier.
[I] Sodium or magnesium, 0.50 maximum.

Reorder No. RC-018 REV A