LINEAGE METALLURGICAL LLC	Item ID:	LA-3302
	Revision Level:	
	Revision Date:	

Title:	Material Specificaiton for LA-3302

Chemical Compositon Requirements (By weight percent)			
Element	**Minimum**	**Maximum**	**Target**
Aluminum	-	-	-
Boron	-	-	-
Carbon	3.90%	4.20%	4.05%
Chromium	-	0.50%	0.25%
Cobalt	11.00%	13.00%	12.00%
Free Carbon	-	-	-
Iron	-	2.00%	1.00%
Manganese	-	-	-
Molybdenum	-	-	-
Nickel	-	0.50%	0.25%
Oxygen	-	-	-
Silicon	-	-	-
Sulfur	-	-	-
Tungsten	85.10%	-	85.10%
Vanadium	-	-	-

Rotap Sizing Requirements (Weight Percent Per ASTM B214)				
U.S. Mesh Passing Sieve X Retained			**Min.**	**Max.**
			-	-
	X		-	-
	X		-	-
	X		-	-
	X		-	-
	X		-	-
	X	**D**	-	-

Sub-Sieve Sizing Requirements (Volume Percent Per ASTM B822)		
Micron Channel	**Min**	**Max**
-176 µ	99.00%	-
-125 µ	90.00%	-
-88 µ	70.00%	90.00%
-62 µ	-	43.00%
-44 µ	-	10.00%
-31 µ	-	4.00%
-22 µ	-	-

Physical Properties Requirements		
Testing Procedure	**Minimum**	**Maximum**
Hall Flow (per ASTM B213)	-	-
Apparent Density (per ASTM B212)	-	-
Mean Value (per ASTM B222)	-	-
D10 (per ASTM B222)	-	-
D50 (per ASTM B222)	-	-
D90 (per ASTM B222)	-	-

Quality Manager: Operations Manager: General Manager: