

Chemistry:	347 /347H	A105/LF2	F22 /B22	F11 /B11	F5 /5 CR	F9 /9 CR	F91
CARBON	.04-.08	0.22 max	.05-.15	.10-.20	0.15 max	.15 max	.08-.12
MANGANESE	2.0 max	*60-1.05	.30-.60	.40-.65	.30-.60	.30-.60	.30-.60
PHOSPHORUS	.040 max	.035 max	.035 max	.025 max	.035 max	.030 max	.020 max
SULFUR	.030 max	.040 max	.040 max	.040 max	.030 max	.030 max	.010 max
SILICON	1.0 max	.15-.30	.50 max	.50-.80	.50 max	.50-1.0	.20-.50
NICKEL	9.-13.0	.40 max			.50 max		.40 max
CHROMIUM	17.-19.0	.30 max	2.0-2.5	1.0-1.5	4.0-6.0	8.0-10.0	8.0-9.5
MOLYBDENUM	.75 max	.12 max	.90-1.10	.44-.65	.44-.65	.90-1.10	.85-1.05
COPPER	.75 max	.40 max					
COLUMBIUM	+ta>10xc	.02 max					.06-.10
VANADIUM		.03 max					.18-.25
NITROGEN	.10 max						.03-.07
TANTALUM	+cb>10c						
TITANIUM							
NIOBIUM	1.10 max						
ALUMINUM							.04 max
TIN				.030 max			
Mechanical							
TENSILE	75 K min	70-95 K	75-95 K	75-95 K	70 K min	85 K min	85 K min
YIELD	30 K min	40 K min	45 K min	45 min	40 K min	55 K min	60 K min
ELONGATION	45% min	22 % min	20 % min	20 % min	20 % min	20 % min	20 % min
RED OF AREA	50% min	30 % min	45 % min	45 % min	35 % min	40 % min	40 % min
BHN	235 max	180 max	156-207	156-207	143-217	179-217	190-248
CHARPIES		-50					
FT LB (min)		15					
Heat Treatment:							
QUENCH C		*675 C					
QUENCH F		*1750 F					
NORMALIZE C		*675 C					1040-1095
NORMALIZE F		*1750 F	1750 F	1750 F	1750 F	1750 F	1900-2000
TEMPERING C		*590 C	675 C	675 C	675 C	675 C	730 C
TEMPERING F		*1100 F	1250 F	1250 F	1250 F	1250 F	1350 F
ANNEAL (min)C	1095 C						
ANNEAL (min)F	2000 F						
UNS#	S34709	K03011	K21590	K11572	K41545	K90941	K90901

