

CHEMICAL COMPOSITION, %

Element	Min	Max	Element	Min	Max
C	0.100	0.150	Si	0.010	0.030
Mn	0.005	0.010	P	0.005	0.010
S	0.005	0.010	As	0.005	0.010
Fe	0.005	0.010	Se	0.005	0.010
Al	0.005	0.010	Sn	0.005	0.010
Ni	0.005	0.010	Cu	0.005	0.010
Cr	0.005	0.010	Mb	0.005	0.010
Mo	0.005	0.010	W	0.005	0.010
Co	0.005	0.010	Nb	0.005	0.010
Ca	0.005	0.010	Bi	0.005	0.010
Mg	0.005	0.010	Pb	0.005	0.010
B	0.005	0.010	Tl	0.005	0.010
Zn	0.005	0.010	Sb	0.005	0.010
Na	0.005	0.010	Hg	0.005	0.010
K	0.005	0.010	Ag	0.005	0.010
Cl	0.005	0.010	Au	0.005	0.010
Br	0.005	0.010	Pt	0.005	0.010
I	0.005	0.010	Ir	0.005	0.010
Os	0.005	0.010	Rh	0.005	0.010
Ru	0.005	0.010	Re	0.005	0.010
Sc	0.005	0.010	Y	0.005	0.010
Zr	0.005	0.010	Hf	0.005	0.010
Ti	0.005	0.010	Ta	0.005	0.010
Nb	0.005	0.010	Sr	0.005	0.010
Ba	0.005	0.010	La	0.005	0.010
Ce	0.005	0.010	Pr	0.005	0.010
Nd	0.005	0.010	Sm	0.005	0.010
Eu	0.005	0.010	Gd	0.005	0.010
Tb	0.005	0.010	Dy	0.005	0.010
Ho	0.005	0.010	Er	0.005	0.010
Tm	0.005	0.010	Yb	0.005	0.010
Lu	0.005	0.010	Be	0.005	0.010
Mg	0.005	0.010	Ca	0.005	0.010
Sc	0.005	0.010	Ti	0.005	0.010
V	0.005	0.010	Cr	0.005	0.010
Cr	0.005	0.010	Mn	0.005	0.010
Mn	0.005	0.010	Fe	0.005	0.010
Fe	0.005	0.010	Ni	0.005	0.010
Ni	0.005	0.010	Cu	0.005	0.010
Cu	0.005	0.010	Zn	0.005	0.010
Zn	0.005	0.010	Al	0.005	0.010
Al	0.005	0.010	Si	0.005	0.010
Si	0.005	0.010	P	0.005	0.010
P	0.005	0.010	S	0.005	0.010
S	0.005	0.010	Se	0.005	0.010
Se	0.005	0.010	Te	0.005	0.010
Te	0.005	0.010	Bi	0.005	0.010
Bi	0.005	0.010	Pb	0.005	0.010
Pb	0.005	0.010	Sn	0.005	0.010
Sn	0.005	0.010	Sb	0.005	0.010
Sb	0.005	0.010	Hg	0.005	0.010
Hg	0.005	0.010	Ag	0.005	0.010
Ag	0.005	0.010	Au	0.005	0.010
Au	0.005	0.010	Pt	0.005	0.010
Pt	0.005	0.010	Ir	0.005	0.010
Ir	0.005	0.010	Rh	0.005	0.010
Rh	0.005	0.010	Re	0.005	0.010
Re	0.005	0.010	Os	0.005	0.010
Os	0.005	0.010	Ru	0.005	0.010
Ru	0.005	0.010	Rf	0.005	0.010
Rf	0.005	0.010	Db	0.005	0.010
Db	0.005	0.010	Sg	0.005	0.010
Sg	0.005	0.010	Bh	0.005	0.010
Bh	0.005	0.010	Hs	0.005	0.010
Hs	0.005	0.010	Mt	0.005	0.010
Mt	0.005	0.010	U	0.005	0.010
U	0.005	0.010	Np	0.005	0.010
Np	0.005	0.010	Pu	0.005	0.010
Pu	0.005	0.010	Am	0.005	0.010
Am	0.005	0.010	Cm	0.005	0.010
Cm	0.005	0.010	Bk	0.005	0.010
Bk	0.005	0.010	Cf	0.005	0.010
Cf	0.005	0.010	Es	0.005	0.010
Es	0.005	0.010	Fm	0.005	0.010
Fm	0.005	0.010	Md	0.005	0.010
Md	0.005	0.010	Lr	0.005	0.010
Lr	0.005	0.010			

HARDNESS TEST, MAX 22HRC	
ITEM NO.	QUADRANT NO.
4	1
4	2
4	3
4	4

OD-OUTSIDE DIAMETER
 AD-AVERAGE DIAMETER
 ID-INSIDE DIAMETER

Temperature at the exit of Quenching furnace: 1634 F - 1706 F.
 Temperature at the exit of Tempering furnace: 1166 F - 1220 F
 ACTUAL HYDROSTATIC TEST PRESSURE: 4910 PSI

Date: 9/12/2014 To: PLESA STEEL INC SO#: S259644 Lr#: 1 PO#: 275 Part: 10750718 Heat#: 2312708

MATERIAL HARDNESS CONFORMS TO MAX HRC 0175/HR 0103. WE CONFIRM THAT STEEL HAS NO CONTAMINATION BY MERCURY BY WELDING HAS BEEN CARRIED OUT. NYC CONPLY WITH THE STANDARD EN 10204 3.1. COUNTRY OF ORIGIN IS RUSSIA.



INSPECTOR - RYBKOVA A.M.
 IVOLANSKY PIPE PLANT
 DATE: 26.09.2013