

MATERIAL TEST CERTIFICATE

CERTIFICATE No. 21564238

ORDER No. PO 105

DATE: SEPTEMBER 24, 2010

Dimension Standard: ANSI/ASME B16.9-03

Material Standard: ASTM A234/A234M-04 WPB
NACE MR 0175-03 ISO 15156

ITEM	DESCRIPTION	SIZE	QTY (PCS)	HEAT NO.	CHEMICAL COMPOSITION (%)											
					C 0.30 Max.	Si 0.10 Min.	Mn 0.29-1.06	P 0.050 Max.	S 0.058 Max.	Cr 0.40 Max.	Ni 0.40 Max.	Mo 0.15 Max.	Cu 0.40 Max.	V 0.08 Max.	Nb 0.02 Max.	CE .50 Max.
1	RED. TEE SCH40 WPB	3 X 4	30	139	0.190	0.230	0.510	0.014	0.024	0.004	0.160	0.015	0.150	0.002	0.001	0.30
2	RED. TEE SCH40 WPB	6 X 4	20	8P40106	0.190	0.160	0.660	0.008	0.003	0.010	0.250	0.010	0.120	0.020	0.009	0.33
3	RED. TEE SCH40 WPB	8 X 4	20	8P40704	0.210	0.260	0.500	0.016	0.024	0.020	0.170	0.012	0.120	0.001	0.004	0.32
4	RED. TEE SCH40 WPB	8 X 6	10	8P40005	0.170	0.270	0.530	0.011	0.029	0.210	0.090	0.006	0.130	0.010	0.007	0.32
5	RED. TEE SCHSTD WPB	12 X 8	10	271	0.190	0.240	0.540	0.015	0.005	0.014	0.160	0.012	0.120	0.003	0.004	0.30
6	RED. TEE SCHSTD WPB	14 X 6	10	418	0.190	0.240	0.540	0.015	0.005	0.014	0.160	0.012	0.120	0.003	0.004	0.30
7	RED. TEE SCHSTD WPB	12 X 6	40	062	0.190	0.270	0.520	0.029	0.014	0.020	0.100	0.005	0.130	0.010	0.006	0.30
8	RED. TEE SCH80 WPB	2 X 11/2	40	124	0.210	0.260	0.570	0.029	0.014	0.020	0.140	0.008	0.170	0.010	0.008	0.33
9	RED. TEE SCH80 WPB	3 X 2	40	805	0.190	0.230	0.510	0.014	0.017	0.004	0.160	0.015	0.150	0.002	0.001	0.30
8	RED. TEE SCH80 WPB	6 X 4	30	709	0.200	0.270	0.550	0.017	0.007	0.050	0.150	0.009	0.120	0.020	0.009	0.33

MECHANICAL PROPERTIES

ITEM	DESCRIPTION	SIZE	QTY (PCS)	HEAT NO.	TENSILE STRENGTH Min. 415 Mpa	YIELD STRENGTH Min. 240 Mpa	EL2IN (%) Min. 30%	HARDNESS (HB) 197 Max.	NOTES
2	RED. TEE SCH40 WPB	6 X 4	20	8P40106	424	287	39	< OR =197	
3	RED. TEE SCH40 WPB	8 X 4	20	8P40704	470	310	32	< OR =197	
4	RED. TEE SCH40 WPB	8 X 6	10	8P40005	485	320	32	< OR =197	
5	RED. TEE SCHSTD WPB	12 X 8	10	271	485	305	33	< OR =197	
6	RED. TEE SCHSTD WPB	14 X 6	10	418	505	310	32	< OR =197	
7	RED. TEE SCHSTD WPB	12 X 6	40	062	490	295	32	< OR =197	
8	RED. TEE SCH80 WPB	2 X 11/2	40	124	480	290	33	< OR =197	
9	RED. TEE SCH80 WPB	3 X 2	40	805	445	344	30	< OR =197	
8	RED. TEE SCH80 WPB	6 X 4	30	709	510	345	32	< OR =197	

We hereby certify that the products described herein has been manufactured in compliance with ASTM A234 WPB and ANSI B16.9 and that the test results shown herein are correct.



QUALITY MANAGER