

MATERIAL TEST CERTIFICATE

Dimension Standard: ASME B16.9-01

Material Standard: ASTM A234-02a WPB NACE MR 0175-03

ITEM	DESCRIPTION	SIZE	QTY (PCS)	HEAT NO.	CHEMICAL COMPOSITION (%)											
					C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V	Nb	CE
1	CON REDUCER SCH40 WPB	12X8	10	123	0.240	0.310	0.410	0.010	0.017	0.040	0.40 Max.	0.15 Max.	0.40 Max.	0.08 Max.	0.02 Max.	.50 Max.
2	CON REDUCER SCH40 WPB	12X10	10	123	0.240	0.310	0.410	0.010	0.017	0.040	0.40 Max.	0.15 Max.	0.40 Max.	0.08 Max.	0.02 Max.	.50 Max.
3	CON REDUCER SCH40 WPB	14X10	10	124	0.210	0.300	0.430	0.009	0.015	0.040	0.40 Max.	0.15 Max.	0.40 Max.	0.08 Max.	0.02 Max.	.50 Max.
4	CON REDUCER SCH40 WPB	14X12	10	124	0.210	0.300	0.430	0.009	0.015	0.040	0.40 Max.	0.15 Max.	0.40 Max.	0.08 Max.	0.02 Max.	.50 Max.
5	CON REDUCER SCH40 WPB	16X6	10	125	0.200	0.280	0.440	0.008	0.012	0.020	0.40 Max.	0.15 Max.	0.40 Max.	0.08 Max.	0.02 Max.	.50 Max.
6	CON REDUCER SCH40 WPB	16X8	10	125	0.200	0.280	0.440	0.008	0.012	0.020	0.40 Max.	0.15 Max.	0.40 Max.	0.08 Max.	0.02 Max.	.50 Max.
7	CON REDUCER SCH40 WPB	16X10	10	125	0.200	0.280	0.440	0.008	0.012	0.020	0.40 Max.	0.15 Max.	0.40 Max.	0.08 Max.	0.02 Max.	.50 Max.
8	CON REDUCER SCH40 WPB	16X12	10	125	0.200	0.280	0.440	0.008	0.012	0.020	0.40 Max.	0.15 Max.	0.40 Max.	0.08 Max.	0.02 Max.	.50 Max.

MECHANICAL PROPERTIES

ITEM	DESCRIPTION	SIZE	QTY (PCS)	HEAT NO.	TENSILE STRENGTH			EL2IN (%)	HARDNESS (HB)	NOTES
					Min. 415 Mpa	YIELD STRENGTH Min. 240 Mpa	374			
1	CON REDUCER SCH40 WPB	12X8	10	123	487	374	35	197 Max.	HOT FORMED 620-980°C AND COOLED IN STILL AIR	
2	CON REDUCER SCH40 WPB	12X10	10	123	487	374	35	197		
3	CON REDUCER SCH40 WPB	14X10	10	124	450	378	36	197	Cu+Ni+Cr+Mo = <OR=1.00%	
4	CON REDUCER SCH40 WPB	14X12	10	124	450	378	36	197		
5	CON REDUCER SCH40 WPB	16X6	10	125	486	372	31	197	Cr+Mo = <OR=0.32%	
6	CON REDUCER SCH40 WPB	16X8	10	125	486	372	31	197		
7	CON REDUCER SCH40 WPB	16X10	10	125	486	372	31	197		
8	CON REDUCER SCH40 WPB	16X12	10	125	486	372	31	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