

Gulf Manufacturing, LLC.

"A Quality and Service Team"

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"Your source for API Flanges and Heavy Wall Fittings"

*****MATERIAL TEST REPORT*****

SOLD TO: INDUSTRIAL PIPING SPEC

P.O.: STP49734X

DATE: 7/25/18

*****ITEMS*****															
HT:	QTY:		DESCRIPTION:												
V048	72		2" XH B/W SMLS CUSHION TEE												
A/SA234WPB															
*****CHEMICALS*****															
C	SI	Mn	P	S	Cr	Ni	Mo	Al	Cu	V	Nb	Ti	N	CE	
.18	.23	1.17	.008	.008	.10	.12	.03	.026	.15	.005	.014	.009	.000	.43	
*****PHYSICAL PROPERTIES*****															
HT:	YIELD:					TENSILE:									
V048	49,300 PSI					71,050 PSI									
HT:	HARDNESS:		RA%:	ELONG:	CVN: C46-	MILL#: 252516									
V048	HBW 143-147		68.64%	32.80%	81-76-72 ft.-lbs	bifrangi									
OTHER:															
HEAT TREATMENT: Normalized material holding time: 1 min. x each millimeter thickness															
Austenitic temp @ 910C uniform cooling air in still air															
NOTES:															
COMPLIANT WITH NACE MR0175/ISO 15156-2015, Annex A (A.2.1.2, A2.1.3)															
COMPLIANT with NACE MR0103/ISO 17945:2015, Section 13.1.1 and 13.1.3															
IN COMPLIANCE WITH EN 10204 3.1/ISO 10474 3.1b															
MFG IN USA															

We hereby certify that all test results and process information contained herein are correct and true as contained in the records of the company.

Quality Assurance Director
Eric A. Berger