

# Certificate of Test

## ITEM INFORMATION

**Part Number:** 0361101801      **Description:** 2 3000 FS THRD 90 ELL  
**Heat Code:** 51224              **Heat Number:** 51224  
**Reference No.:**  
**Part Specification:** ASTM A105/A105M-21/ASME SA105-19 NACE MR 0103/MR 0175/ISO 15156-2

## CHEMICAL ANALYSIS %

C	Mn	P	S	Si	Cu	Ni	Cr	Mo	V	Cb/Nb	Co	CE
0.2100	1.0400	0.0140	0.0220	0.2280	0.1400	0.0600	0.1500	0.0100	0.0240	0.0020	0.0080	0.433

CE (LONG FORMULA) = 0.433

## PHYSICAL PROPERTIES

Yield KSI	Yield PSI	Yield MPA	Tensile KSI	Tensile PSI	Tensile MPA	Elongation	REDUCTION OF AREA %	HARDNESS 1 BHN/HRC	HARDNESS 2 BHN/HRC
51	50565	348	78	78433	540	33.60	64.09	137	139

## IMPACT TESTING

TYPE	TEMP	SMPL# 1	# 2	# 3	AVG	%SHEAR	LAT EXP
CHARPY	0						

## SUPPLEMENTAL INFORMATION

THE ORIGINAL MANUFACTURER'S CERTIFICATION MEETS THE REQUIREMENTS OF EN 10204 TYPE 3.1. WE CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF THE MILL CERTIFICATE, ISSUED BY THE MANUFACTURER OF THE STEEL EMPLOYED OR THE LABORATORY WHICH HAS DETERMINED IT, AS RETAINED IN THE RECORDS OF THE COMPANY. WE MAKE NO REPRESENTATION BEYOND THOSE OF THE MANUFACTURER OR ITS AGENT.