

CERTIFICATE OF TESTS  
CERT SERIAL# 000557822

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE



**CARPENTER**

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12/11/07

CUSTOMER / BESTELLER / CLIENT

METAL & CABLE

P.O. BOX 117  
TWINSBURG

OH 44087

SELLER / VERKÄUFER / VENDEUR PAGE 1 OF 1

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CUSTOMER ORDER NO. / BESTELL-NR. / N° DE COMMANDE	CARPENTER NO. / WERKS-NR. / N° DE REFERENCE INTERNE	DATE / DATUM / DATE	WEIGHT / GEWICHT / POIDS
4786	W98033		

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 210305

PRODUCT DESCRIPTION: VIM/VAR TYPE 304L ANNEALED GROUND

SPECIFICATION: ASTM-A479-05 MODIFIED CHEMISTRY  
ASTM-A262-02A(E1) PRACTICE E  
\*AMS 5647 REV H (07/02/)

SIZE 1.562000 IN. ( 39.67 MM) RD BAR

PRIMARY HEAT CHEMISTRY (WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN (XRF)	SI (XRF)	P (XRF)	S (COM)	CR (XRF)
LT .004	1.81	0.48	0.004	0.002	19.40
NI (XRF)	MO (XRF)	CU (XRF)	LT CO (XRF)	AL (OES)	N (FUS)
10.34	0.01	0.05	.01	0.003	0.04
O (FUS)					
0.012					

\*MINIMUM OF .03" MECHANICALLY REMOVED AFTER ANNEALING

INTERGRANULAR CORROSION TESTED TO ASTM-A262, PRACTICE E - ACCEPTABLE.  
ANNEALED MICROSTRUCTURE FREE FROM CONTINUOUS GRAIN BOUNDARY CARBIDE  
PRECIPITATION (NETWORK).  
NO WELD REPAIR.

HARDNESS AS SHIPPED, HRB - 76 (MIDRADIUS)

YIELD STRENGTH, (0.20 %) KSI(MPA) 32.1 ( 221)  
TENSILE STRENGTH, KSI(MPA) 75.5 ( 521)  
ELONGATION IN 2.00", % 61.0  
REDUCTION OF AREA, % 83.0

GRAIN SIZE PER ASTM E112: 4

\*THIS MATERIAL CONFORMS TO THE TECHNICAL REQUIREMENTS OF THE AMS SPECIFICATION REFERENCED ABOVE.

MATERIAL PRODUCED ON THIS ORDER WAS MELTED AND MANUFACTURED IN THE U.S.A. MATERIAL HAS BEEN MELTED IN USA OR QUALIFYING COUNTRY TO DFARS REQUIREMENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1. CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF SEPTEMBER 2, 2004 TO THE REQUIREMENTS OF ISO 9001:2000 APPROVAL CERTIFICATE 04-0540 BY PERFORMANCE REVIEW INSTITUTE. CERTIFICATE OF TEST IS PREPARED IN ACCORDANCE WITH PARAGRAPH 3.1 OF EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS.

DATE REVISED: 12/10/07 HEIDI L. SUNDAY  
MET RELEASE/REQUIREMENTS ANALYST

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