McMASTER-CARR®

Certificate

330-995-5500
330-995-9600 (fax)
cle.sales@mcmaster.com

Purchase Order	Order Date	Placed By	McMaster-Carr Number	Number of Certificates
P1562775	2/3/2026	Jon Wood	2116391-01	1

Line		Product	Ordered	Status	Certificate
1	91257A720	Zinc Yellow-Chromate Plated Hex Head Screw, Grade 8 Steel, 1/2"-13 Thread Size, 2" Long, Partially Threaded	8 packs	8 packs deliver February 4	281–8589

Your order is subject only to our terms and conditions, available at www.mcmaster.com or from our Sales Department.

INFASCO

ISO 9001, IATF 16949
ISO / IEC 17025
ISO 14001

LOT NO.: 2412–33828
6474G

FASTENER TEST REPORT

(THIS DOCUMENT MAY ONLY BE REPRODUCED IN ITS ENTIRETY, WITH PRIOR WRITTEN APPROVAL BY THE INFASCO LABORATORY)

(THE INFASCO LABORATORY IS ACCREDITED BY THE CCN FOR THE TESTS LISTED AT WWW.CCN.CA)

COMPLIES WITH EN10204:2004 INSPECTION CERTIFICATE 3.1

DATE 2024-12-11

DESCRIPTION AND MARKING	HEX HD CAP SCREW J429-8 FNA UNC N ZY SOLID TRIANGLE & 6 RADIAL LINES

SIZE	GRADE	QUANTITY
1/2-13 X 2	10B35M	91,745

HEAT CHEMICAL ANALYSIS (provided by steel supplier)

HEAT NO.	C %	Mn %	P %	S %	Si %	B %			
A70932	0.34	0.81	0.008	0.004	0.19	0.002			

METHOD		ASTM F606		ASTM E18	ASTM F606		ASTM E376
	PROOF LOAD	WEDGE TENSILE STRENGTH (psi)	SHEAR STRENGTH	SURFACE HARDNESS (HR 30N)	CORE HARDNESS (ROCKWELL)	MICRO HARDNESS	COATING THICKNESS (0.001 in)
SPEC. MIN.		150,000			HRC 33.0		0.20
SPEC. MAX:				58.6	HRC 39.0		
SAMPLE NO.1		166,000		56.8	HRC 37.4		0.31
NO.2		164,000		57.9	36.8		0.34
NO.3		168,000		57.5	36.9		0.21
NO.4				57.3	36.3		0.32
NO.5				57.4	35.6		0.25
NO.6							0.31
NO.7							0.33
NO.8							0.33
NO.9							0.34
NO.10							0.25
NO.11							0.23
NO.12							0.33
NO.13							0.31
NO.14							0.25
NO.15							0.27

THE ABOVE TESTED SAMPLES HAVE BEEN INSPECTED FOR VISUAL DISCONTINUITIES AND FOUND ACCEPTABLE.
THEY COMPLY IN ALL RESPECTS WITH THE LATEST EDITION OF THE FOLLOWING SPECS:
SAE J-429, ASME B18.2.1,THREADS PER ASME B1.1 CLASSE 2A UNLESS OTHERWISE SPECIFIED.
THESE FASTENERS WERE OIL QUENCHED AND TEMPERED AT A TEMP.ABOVE 800°F.
ASTM F1941 Fe/Zn 5CNS, ASTM B633 Fe/Zn 5 Type II, SALT SPRAY PERFORMANCE MEETING 96/120 HRS

COMPLIES WITH RoHS DIRECTIVE
COATING THICKNESS VALUES ARE PROVIDED BY GALVANO LABORATORY.

MANUFACTURED IN : CANADA

The steel was melted and rolled in North America and is mercury and asbestos–free.

Christian Raymond
Quality Assurance Supervisor

INFASCO
A division of Ifastgroupe LP
A Heico Company
700 Ouellette, Marieville (Quebec) J3M 1P6
Tel.: (450) 658–8741 Fax: (450) 460–5496

MILL TEST CERTIFICATE

IVACO ROLLING MILLS
P.O.BOX 322, L'ORIGNAL, ONTARIO, CANADA K0B 1K0
TEL.: (613) 675-4671 FAX: (613) 675-6866

90052 0163 ***INFASCO C/O INFASCO***
700 RUE OUELLETTE
BOX 0
MARIEVILLE (QC) J3M 1P6

NVLAP only covers the chemistry presented within this certificate. All other data is not covered by the NVLAP accreditation.

C-TPAT Customs-Trade Partnership Against Terrorism — BUILDING PARTNERSHIPS • PROTECTING FREEDOM

NVLAP® TESTING NVLAP LAB CODE 200143-0

ATTENTION : VIA : EMAIL

Date Rolled 04-Nov-2024 Date Chemical Analysis Performed 03-Nov-2024

P.O. Number	Order Number	Heat Number	Customer Spec.	Spec Rev. No.	Customer Part No.	Billet Order	Grade	Diameter
286627	40154980	A70932	10B35M	Rev 7 2022-03-02	C10B35M130000	573010	10B35MSIAK CHQ	13.00 mm

Heat Analysis

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	N	B	V	Ti							
Spec. Min *	.32	.70			.15			.10			.02	.003	.0015		.010							
Actual	.34	.81	.008	.004	.19	.15	.05	.11	.02	.01	.03	.007	.0023	.01	.040							
Spec. Max*	.36	.90	.020	.020	.30	.20	.10	.25	.04	.02	.05	.009	.0030		.050							

This is to certify that heat number A70932 is in conformance with the required specifications.
Heat analysis obtained by test methods ASTM E415 and ASTM E1019.
*Minimum and maximum refer to the required customer specification.

This is to certify that the material is in conformance with the required specifications.
The wire rod was produced from Continuous Cast billets.
Ivaco rod do not contain welds. Billets used to produce rod are not welded.
This product passed an upset test.
Country of origin: Rod (CANADA), Melt (CANADA).
Radioactive emissions are at background levels.
The material is free from asbestos contamination.
The product has not come in contact with mercury or any of its compounds during processing at I.R.M.
No Bismuth,Selenium,Tellurium or Lead have been intentionally added.
Random samples of steel produced by IRM were analyzed by an independent testing laboratory and confirmed that there are trace amounts only of hazardous substances prohibited by RoHS.
This steel was produced using a fine grain steelmaking practice (6-11).

Decarburization

SAMPLE	PARTIAL	%	TOTAL	%
2	0.002	0.49	0.000	0.00

Results of Physical Testing

	UTS (KSI)	ROA (%)	DIA. (In)
Average	93	48	.514
Maximum	94	48	.516
Minimum	93	47	.513

HARDENABILITY TEST RESULTS

HEAT	J1	J2	J3	J4	J5	J6	J7	J8
A70932	53	52	51	50	45	38	33	29

APPROVED BY : _____
Cédrik Miner - QC supervisor (S/P)

ISSUED BY QUALITY ASSURANCE : _____
Date: 6 Nov 2024
Patrick Genest for Gracias Tshilombo Specification Clerk

This Certificate shall not be reproduced except in full, without the written approval of Ivaco Rolling Mills LP, a Heico Company.
This certificate is not to be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government.

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