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
P1581143	8/17/2026	Jonathan Wood	4127820-02	1

Line		Product	Ordered	Status	Certificate
1	91571A256	Heavy Hex Head Screw for Structural Application, Grade A325 Steel, 1/2"-13 Thread Size, 2-1/2" Long	3 packs	3 packs deliver August 18	357–6481

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

INFASCO

LOT NO.: 2509–32291

ISO 9001, IATF 16949
ISO / IEC 17025
ISO 14001

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 2025–09–23

DESCRIPTION AND MARKING	A325–1 STRUCTURAL BOLT UNC N P HOLLOW TRIANGLE & "A325"

SIZE	GRADE	QUANTITY
1/2–13 X 2 1/2	10B35M	5,918

HEAT CHEMICAL ANALYSIS (provided by steel supplier)

HEAT NO.	C %	Mn %	P %	S %	Si %	B %			
A73235	0.35	0.77	0.009	0.006	0.19	0.002			

METHOD	ASTM F606	ASTM F606			ASTM F606		
SAMPLES SELECTED BY : 0487	PROOF LOAD (psi)	WEDGE TENSILE STRENGTH (psi)	SHEAR STRENGTH	SURFACE HARDNESS (HR 30N)	CORE HARDNESS (ROCKWELL)	MICRO HARDNESS	COATING THICKNESS
SPEC. MIN. SPEC. MAX:	85,000	120,000			HRC 25.0 HRC 34.0		
SAMPLE NO.1	PASS	146,000			HRC 31.1		
NO.2	PASS	150,000			31.4		
NO.3	PASS	149,000			31.7		
NO.4					31.7		

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:
ASTM F3125 GRADE A325 TYPE 1, ASME B18.2.6, THREADS PER ASME B1.1 CLASS 2A. UNLESS OTHERWISE SPECIFIED. MEETS THE SURFACE DISCONTINUITIES REQUIREMENTS.
THESE FASTENERS WERE OIL QUENCHED AND TEMPERED AT A TEMP. ABOVE 800°F.
NO BISMUTH, SELENIUM, TELLURIUM OR LEAD HAVE BEEN INTENTIONALLY ADDED

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 07-Mar-2025 Date Chemical Analysis Performed 03-Mar-2025

P.O. Number	Order Number	Heat Number	Customer Spec.	Spec Rev. No.	Customer Part No.	Billet Order	Grade	Diameter
287799	40156722	A73235	10B35M	Rev 7 2022-03-02	C10B35M130000	580544	10B35MSIAK CHQ	13.00 mm

Heat Analysis

	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Sn	Al	N	B	V	Ti							
Actual	.35	.77	.009	.006	.19	.12	.05	.10	.01	.01	.04	.008	.0021	.01	.042							

This is to certify that heat number A73235 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.
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	%
1	0.002	0.37	0.000	0.00

Results of Physical Testing

	UTS (KSI)	ROA (%)	DIA. (In)
Average	94	46	.512
Maximum	94	51	.513
Minimum	93	42	.512

HARDENABILITY TEST RESULTS

HEAT	J1	J2	J3	J4	J5	J6	J7	J8
A73235	53	52	51	49	43	34	29	25

APPROVED BY : _____
Duta Aziz - QC supervisor (S/P)

ISSUED BY QUALITY ASSURANCE : _____
Date: 14 Mar 2025
Patrick Genest for Gracias Tshilombo QA Assistant

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.

Form-MTC101 Rev 3 END OF PAGE