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
P1561711	1/21/2026	Jonathan Wood	1502673-01	1

Line		Product	Ordered	Status	Certificate
1	90128A273	Zinc-Plated Alloy Steel Socket Head Screw, M8 x 1.25 mm Thread, 16 mm Long	1 pack	1 pack delivers January 22	311–9054

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

Sales Order Number: 1355271-002
Finished Lot Number: 4199431-PPO

LMI P/N SC22080160-14

Lot # Z112500034

Lot

CERTIFICATE NO :- 217
DATE :- 08.09.2025

Sundram Fasteners Limited,
Krishnapuram.

Country of Origin - INDIA

INSPECTION REPORT

PURCHASER :	LINDSTROM METRIC,LLC	P.O NO	941107
ADDRESS	2950 100th COURT N.E BLANE, MN 55449 - USA	CUSTOMER PART NO:-	SC22080160-14
SFL PART NO :-	316082016-2500	LOT NO :-	89072256
DESCRIPTION :-	M8X16 912-12.9 ZN FT SOC.SCREW	LOT QUANTITY :-	50,090 Nos
MATERIAL:-	5140	HEAT NO :-	JAYC102034
MANUFACTURER :-	SUNDRAM FASTENERS LIMITED	H/T LOAD NO : -	SY8-250827-06
MANUFACTURING DATE :-	23.08.2025	SURFACE FINISH :	(Cr6 Free) Zinc Plated Iridescent + Ultraseal
INVOICE NO:-	1004204547	INVOICE DATE :-	31.08.2025
BACKING TIME (OVEN)	23 HOURS		23 HOURS COMPLETED

DIMENSIONAL INSPECTION TEST METHOD : PER : ISO 4762

S.NO	INSPECTION ITEM	SAMPLE SIZE	UNIT OF MEASUREMENT	SPECIFICATION MIN	SPECIFICATION MAX	ACTUAL MIN	ACTUAL MAX	RESULT
1	VISUAL	1000 NOS	VISUAL	ISO 6157-3		OK		OK
2	GRADE & TRADE MARK	1000 NOS	–	TVS 12.9		VERIFIED OK		OK
3	THREAD DETAILS	10 NOS	SRG GAUGES	M8 x 1.25 ' 5g6g' CLASS		OK TO GAUGE		OK
4	SOCKET ACROSS FLAT	10 NOS	MM	6.020	6.095	OK TO GAUGE		OK
5	HEAD THICKNESS	5 NOS	MM	7.64	8.00	7.84	7.86	OK
6	HEAD DIAMETER	5 NOS	MM	12.73	13.27	13.11	13.15	OK
7	HEAD JN RADIUS	5 NOS	MM	R 0.4 MIN		R 0.6	R 0.7	OK
8	OVER ALL LENGTH	20 NOS	MM	15.65	16.35	15.86	15.91	OK
9	UNTHREAD LENGTH	20 NOS	MM	3.75 MAX		2.87	2.95	OK
10	MAJOR DIA	5 NOS	MM	7.760	8.000	7.862	7.885	OK
11	EFF DIA	5 NOS	MM	7.065	7.188	7.084	7.103	OK
12	MINOR DIA	5 NOS	MM	6.272	6.466	6.352	6.374	OK
13	PLATING THICKNESS	5 NOS	µm	5 µm MIN		10.70	11.50	OK
	MECHANICAL PROPERITIES (PER : ISO 898-1)							
1	HARDNESS	15 NOS	HRC	39	44	40	42	OK
2	PROOF LOAD	2 NOS	N	35500 MIN		MET		OK
3	YIELD STRENGTH	5 NOS	N/mm^2	1100 MIN		1177	1193	OK

INSPECTED BY : RAMESH KRISHNAN

RELEASED BY : R.SESHADRI

Sales Order Number: 1355271-002
Finished Lot Number: 4199431-PPO

QA/RM/F10

TEST CERTIFICATE

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TC NO : TCWRM0000048084

P.O. NO. & DATE	MAIL 09.06.2025			MFR No	JNT0001272
CUSTOMER NAME	Sundram Fasteners Limited			MFR REV NO	0003
TDC No	R100A		INVOICE NO	2624124351	
TDC Rev.No	19		TRUCK NO	TN52AD5464	
TDC Date	08.06.2018		DATE	04.07.2025	
HEAT NO	C102034		BNDL/COIL/PCS	4 COILS	
GRADE	SAE5140		QUANTITY (MT)	5.030	
CAST SIZE (MM * MM)	160X160		COLOUR CODE		
SECTION (MM)	8 DIA		SUPPLY CONDITION	SPHEROIDIZED ANNEALED	
REDUCTION RATIO(MIN)	Actual	509.55	LENGTH OF BARS		
Production process	BF -EOF-LRF-VD-CCM-M-EMS-WRM-BB		MULTIPLE LENGTH(MM)		

CHEMICAL COMPOSITION

ELEMENTS		%C	%MN	%P	%S	%SI	%CR	%NI	%MO	%CU	%SN
SPECIFICATION	Min	0.3800	0.7000			0.1500	0.7000				
	Max	0.4300	0.9000	0.0200	0.0200	0.3000	0.9000			0.2000	0.0200
RESULTS		0.4180	0.8300	0.0050	0.0040	0.2000	0.8050	0.0180	0.0050	0.0050	0.0040

ELEMENTS		%V	%TI	%B	%AL	%CA	O2 PPM	N2 PPM	H2 PPM		
SPECIFICATION	MIN										
	Max						20.0000	90.0000	2.0000		
RESULTS		0.0040	0.0016	0.0001	0.0350	0.0010	13.1000	65.0000	1.7300	0.0000	0.0000

FINAL PRODUCT SAMPLING IS DONE BY QA

TENSILE Prop.	TEST CONDITION	RULING SECTION	TENSILE STRENGTH	YIELD STRENGTH	% ELONGATION	% REDUCTION IN AREA	IMPACT TEST RESULTS()
SPECIFICATION			88 KG/M2 MAX				
RESULTS			60.93 KGF/MM2				

HARDNESS (IS1586-1)		QUENCHED HARDNESS	RULING SECTION	DECARBURIZATION
	HRB			PARTIAL ()
SPECIFICATION	96 MAX	50 HRC MIN		Ø,D# 8.0:0.075MM MAX,Ø, D #8.1 #14.9:0.10MM MAX, Ø,D # 15.0:0.15MM MAX
RESULTS	72/73 HRB	52/53 HRC		0.05 MM PARTIAL

	MACRO ETCH TEST	MICROSTRUCTURE	MICROSTRUCTURE BANDING
SPECIFICATION		80% SPH	
RESULTS	BETTER THAN C1R1S1	80% SPH	

	GRAIN SIZE ASTM E112	NDT TEST		
METHODS	Grain Size	100%UST	100% MPI	
SPECIFICATION	ASTM E1125-5 ASTM	NA	NA	
RESULTS	7.0 ASTM			

INCLUSION RATING TEST (ASTM E45A/ ISO-4967/ IS-4163)									K TYPE INCLUSION RATING (DIN 50602)				STEP DOWN TEST (IS 4078)
	A TYPE		B TYPE		C TYPE		D TYPE						
	THIN	THICK	THIN	THICK	THIN	THICK	THIN	THICK	K-Type	SULPHIDE	OXIDE	Q + S	
SPECIFICATION	2.0	1.5	2.0	1.5	2.0	1.5	1.5	1.0	(MAX)				NA
RESULTS	0.5	0.0	0.5	0.0	0.0	0.0	1.5	0.0					

	PMI TEST (100% SPARK / SPECTRAL / MOBILE SPECTRO)	UPSET TEST (IS : 10187:2006)	D.I (MM / INCHES)
SPECIFICATION		80%	
RESULTS	100% OK	OK	

JOMINY HARDENABILITY TEST (IS 3848)

DISTANCES											
SPECIFICATION	Min										
	Max										
RESULTS (HRC)											

Note

Sundram Fasteners Ltd.
TC Verified
Ok

Document certified by DS JAYASWAL NECO INDUSTRIES LIMITED
Mr. Nirmal Sinha
Engineer
This is a system generated report
7/4/2025 1:46:11 PM

REMARKS : Test certificate according to EN10204/3.1
The steel is free from Radioactive contents. Restricted substances,Cadmium, Mercury,Lead, Hexavalent chromium are within the permissible limits.

Sign:

Authorised Signatory13:50:06