



# GEM-YEAR TESTING LABORATORY

## CERTIFICATE OF INSPECTION

MANUFACTURER : GEM-YEAR INDUSTRIAL CO., LTD.  
ADDRESS : NO.8 GEM-YEAR  
ROAD, E.D.Z., JIASHAN, ZHEJIANG, P.R. CHINA

PURCHASER : MAPTCO FASTENERS (AUST) PTY LTD  
PO. NUMBER : MAP-1938M  
COMMODITY : FLAT ROUND WASHER --  
SIZE : M12  
LOT NO : 1E19AF037 (1A2019C1024)  
SHIP QUANTITY : 3,085 PCS  
HEADMARKS :

COUNTRY OF ORIGIN : CHINA

Tel: (0573)84185001(48Lines)  
Fax: (0573)84184488 84184567  
DATE : 2020/03/10

PACKING NO : GEM200103002  
INVOICE NO : GEM/MAP-200317MEL  
PART NO : G002  
SAMPLING PLAN :  
ASME B18.18-2017/ASTM F1470-2018  
HEAT NO : 19706258  
MATERIAL : 45

FINISH : H. T. HOT DIP GAL PER ASTM  
A153/ASTM F2329

**PERCENTAGE COMPOSITION OF CHEMISTRY : TEST FACILITY : S**

Chemistry	C%	Mn%	Ni%	P%	S%	Si%
Spec. : MIN.	0.4200	0.5000				0.1700
MAX.	0.5000	0.8000	0.3000	0.0350	0.0350	0.3700
Test Value	0.4500	0.6100	0.0200	0.0110	0.0110	0.2300

**DIMENSIONAL INSPECTIONS : ACCORDING TO AS1252-1983 TEST FACILITY: M**

SAMPLED BY : ZHANG HUI JING

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC.	REJ.
WASHER OUTSIDE DIAMETER	5 PCS	JB/T 9151		25.4000-27.0000 MM	25.8400-26.1900 MM	5	0
WASHER INSIDE DIAMETER	5 PCS	JB/T 9151		14.0000-14.4300 MM	14.1400-14.2500 MM	5	0
WASHER THICKNESS	5 PCS	JB/T 9151		3.1000-4.6000 MM	3.8400-4.1300 MM	5	0
SURFACE DISCONTINUITIES	29 PCS	ISO6157.3			PASSED	29	0

**MECHANICAL PROPERTIES : ACCORDING TO AS1252-1996 TEST FACILITY: M**

SAMPLED BY : YJUN

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC.	REJ.
CORE HARDNESS	15 PCS	ISO898.1		26-45 HRC	40-42.8 HRC	15	0
PLATING THICKNESS( μ m)	4 PCS	ASTM B568		>=53	68.56-90.85	4	0

ALL TESTS ARE IN ACCORDANCE WITH THE METHODS PRESCRIBED IN THE APPLICABLE ASTM/SAE/ASME/MIL-STD-120 SPECIFICATION. WE CERTIFY THAT THIS DATA IS A TRUE REPRESENTATION OF INFORMATION PROVIDED BY THE MATERIAL SUPPLIER AND OUR TESTING LABORATORY.

THE REPORT IS ISSUED ACCORDING TO ISO16228 F3.1(EN10204 3.1)

TYPE M : MANUFACTURER

TYPE S : SUPPLIER (STEEL MILL, PLATING SUB SUPPLIER, HEAT TREATMENT SUB SUPPLIER ETC.,)

SIGNATURE : \_\_\_\_\_