



## GEM-YEAR TESTING LABORATORY CERTIFICATE OF INSPECTION

MANUFACTURER : GEM-YEAR INDUSTRIAL CO., LTD.  
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PURCHASER : MAPTCO FASTENERS (AUST) PTY LTD  
PO. NUMBER : MAP-1938M  
COMMODITY : AS1252 FLAT WASHER INNER DAI CHANGE --  
SIZE : M20 ID:21.25  
LOT NO : 1E19AF084 (1A2019B0798)  
SHIP QUANTITY : 55,200 PCS  
HEADMARKS :

PACKING NO : GEM191031003  
INVOICE NO : GEM/MAP-191216MEL-1  
PART NO : G050  
SAMPLING PLAN :  
ASME B18.18-2017/ASTM F1470-2018  
HEAT NO : 19607804  
MATERIAL : 45

COUNTRY OF ORIGIN : CHINA

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	0.5900	0.0100	0.0130	0.0040	0.2800

**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	4PCS	JB/T 9151		37.4000-39.0000 MM	38.0300-38.1900 MM	4	0
WASHER INSIDE DIAMETER	4PCS	JB/T 9151		20.9500-21.2500 MM	21.0500-21.1500 MM	4	0
WASHER THICKNESS	4PCS	JB/T 9151		3.1000-4.6000 MM	3.9200-4.0900 MM	4	0
SURFACE DISCONTINUITIES	29PCS	ISO6157.3			PASSED	29	0

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

SAMPLED BY : TANGHAO

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC.	REJ.
AFTER HOT DIP GALVANIZING	15PCS	ISO898.1		26-45 HRC	34.3-36.9 HRC	15	0
PLATING THICKNESS( μ m)	29PCS	ASTM B568		>=53	62.57-64.99	29	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 : \_\_\_\_\_