



GEM-YEAR TESTING LABORATORY

CERTIFICATE OF INSPECTION

MANUFACTURER : GEM-YEAR INDUSTRIAL CO., LTD.
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DATE : 2019/12/17

PURCHASER : MAPTCO FASTENERS (AUST) PTY LTD
PO. NUMBER : MAP-1938M
COMMODITY : AS1252 FLAT WASHER INNER DAI CHANGE --
SIZE : M20 ID:21.25
LOT NO : 1E19AF040 (1A2019B0733)
SHIP QUANTITY : 45,600 PCS
HEADMARKS :

PACKING NO : GEM191031003
INVOICE NO : GEM/MAP-191216MEL-1
PART NO : G051
SAMPLING PLAN :
ASME B18.18-2017/ASTM F1470-2018
HEAT NO : 19706258
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	0.6100	0.0200	0.0110	0.0110	0.2300

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

SAMPLED BY : TAO JIA MIN

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC.	REJ.
WASHER OUTSIDE DIAMETER	5 PCS	JB/T 9151		37.4000-39.0000 MM	38.2500-38.5500 MM	5	0
WASHER INSIDE DIAMETER	5 PCS	JB/T 9151		20.9500-21.2500 MM	21.0400-21.1600 MM	5	0
WASHER THICKNESS	5 PCS	JB/T 9151		3.1000-4.6000 MM	3.7100-3.7500 MM	5	0
SURFACE DISCONTINUITIES	29 PCS	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	15 PCS	ISO898.1		26-45 HRC	33.3-35.9 HRC	15	0
PLATING THICKNESS(μ m)	29 PCS	ASTM B568		>=53	53.99-61.74	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 : _____