



**GEM-YEAR TESTING LABORATORY
CERTIFICATE OF INSPECTION**

MANUFACTURER: GEM-YEAR INDUSTRIAL CO., LTD.
 ADDRESS: NO.8GEM-YEAR
 ROAD,E.D.Z.JIASHAN,ZHEJIANG,P.R.CHINA
 PURCHASER: MAPTCO FASTENERS (AUST) PTY LTD
 PO. NUMBER: MAP-2031F
 COMMODITY: AS1252 FLAT ROUND WASHERS --
 SIZE: M16
 LOT NO: 1E19AF087(1A20A07491)
 SHIP QUANTITY: 3,600 PCS
 HEADMARKS:
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)
 FAX: (0573) 84184488 84184567
 DATE: 2020/10/27
 PACKING NO: GEM201014002
 INVOICE NO: GEM/MAP-201030FRE
 PART NO: G022
 SAMPLING PLAN:
 ASME B18.18-2017/ASTM F1470-2018
 HEAT NO: 19607804
 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	0.5900	0.0100	0.0130	0.0040	0.2800

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

SAMPLED BY: ZHANGHUIJIN

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
WASHER INSIDE DIAMETER	5 PCS	JB/T 9151		18.0000-18.4300 MM	18.1100-18.2900 MM	5	0
WASHER THICKNESS	5 PCS	JB/T 9151		3.1000-4.6000 MM	3.6500-3.8900 MM	5	0
SURFACE DISCONTINUITIES	29 PCS	IS06157.3			PASSED	29	0
WASHER OUTSIDE DIAMETER	5 PCS	JB/T 9151		32.4000-34.0000 MM	32.5600-32.7900 MM	5	0

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

SAMPLED BY: ZHANGHUIJIN

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
CORE HARDNESS	15 PCS	IS0898.1		26-45 HRC	33-40 HRC	15	0
PLATING THICKNESS(μm)	20 PCS	ASTM B568		>=53	53.46-87.92	20	0

ALL TESTS ARE IN ACCORDANCE WITH THE METHODS PRESCRIBED IN THE APPLICABLE ASTM/SAE/ASME. 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.,)

WE CERTIFY THE PARTS ARE ROHS COMPLIANT.

SIGNATURE: