



**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-2031M  
 COMMODITY: FLAT ROUND WASHER --  
 SIZE: M12  
 LOT NO: 1F2070126(1A20810031)  
 SHIP QUANTITY: 14,960 PCS  
 HEADMARKS:  
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)  
 FAX: (0573) 84184488 84184567  
 DATE: 2020/09/04  
 PACKING NO: GEM200821004  
 INVOICE NO: GEM/MAP-200906MEL  
 PART NO: G003  
 SAMPLING PLAN:  
 ASME B18.18-2017/ASTM F1470-2018  
 HEAT NO: H20050329  
 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	0.4400	0.5900	0.0160	0.0230	0.0070	0.2300

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

SAMPLED BY: ZHANGHUIJIN

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
WASHER OUTSIDE DIAMETER	4 PCS	JB/T 9151		25.4000-27.0000 MM	25.6900-25.9500 MM	4	0
WASHER INSIDE DIAMETER	4 PCS	JB/T 9151		14.0000-14.4300 MM	14.1100-14.3600 MM	4	0
WASHER THICKNESS	4 PCS	JB/T 9151		3.1000-4.6000 MM	3.4500-3.7500 MM	4	0
SURFACE DISCONTINUITIES	29 PCS	IS06157.3			PASSED	29	0

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

SAMPLED BY: NIESUYING

INSPECTIONS ITEM	SAMPLE	TEST METHOD	REF	SPECIFIED	ACTUAL RESULT	ACC	REJ
CORE HARDNESS	15 PCS	IS0898.1		26-45 HRC	38-39 HRC	15	0
PLATING THICKNESS( μm)	20 PCS	ASTM B568		>=53	67.32-77.42	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: