



**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-2025F
 COMMODITY: AS1252 FLAT ROUND WASHERS --
 SIZE: M16
 LOT NO: 1F2080212(1A20A06861)
 SHIP QUANTITY: 4,732 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: G021
 SAMPLING PLAN:
 ASME B18.18-2017/ASTM F1470-2018
 HEAT NO: 20405491
 MATERIAL: 45A
 FINISH: H. T. HOT DIP GAL PER ASTM
 A153/ASTM F2329

PERCENTAGE COMPOSITION OF CHEMISTRY: TEST FACILITY :S

| Chemistry | C% | Cr% | Cu% | Mn% | Ni% | P% | S% | Si% |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Spec.:MIN. | 0.4200 | | | 0.5000 | | | | 0.1700 |
| MAX. | 0.5000 | 0.2500 | 0.2500 | 0.8000 | 0.3000 | 0.0350 | 0.0350 | 0.3700 |
| Test Value | 0.4500 | 0.0800 | 0.0300 | 0.5800 | 0.0600 | 0.0160 | 0.0090 | 0.2200 |

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

SAMPLED BY: WUMENGJIE

| INSPECTIONS ITEM | SAMPLE | TEST METHOD | REF | SPECIFIED | ACTUAL RESULT | ACC | REJ |
|-------------------------|--------|-------------|-----|--------------------|--------------------|-----|-----|
| WASHER INSIDE DIAMETER | 4 PCS | JB/T 9151 | | 18.0000-18.4300 MM | 18.1200-18.2500 MM | 4 | 0 |
| WASHER THICKNESS | 4 PCS | JB/T 9151 | | 3.1000-4.6000 MM | 3.6500-3.8000 MM | 4 | 0 |
| SURFACE DISCONTINUITIES | 29 PCS | IS06157.3 | | | PASSED | 29 | 0 |
| WASHER OUTSIDE DIAMETER | 4 PCS | JB/T 9151 | | 32.4000-34.0000 MM | 32.8900-32.9500 MM | 4 | 0 |

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

SAMPLED BY: WANGXIAOLAN

| INSPECTIONS ITEM | SAMPLE | TEST METHOD | REF | SPECIFIED | ACTUAL RESULT | ACC | REJ |
|------------------------|--------|-------------|-----|-----------|---------------|-----|-----|
| CORE HARDNESS | 15 PCS | IS0898.1 | | 26-45 HRC | 39.7-41.7 HRC | 15 | 0 |
| PLATING THICKNESS(μm) | 20 PCS | ASTM B568 | | >=53 | 74.86-84.68 | 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: