



**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-2014M
 COMMODITY: AS1252 FLAT ROUND WASHERS --
 SIZE: M30
 LOT NO: 1F2060050(1A20714941)
 SHIP QUANTITY: 474 PCS
 HEADMARKS:
 COUNTRY OF ORIGIN: CHINA

TEL: (0573) 84185001 (48Lines)
 FAX: (0573) 84184488 84184567
 DATE: 2020/08/03
 PACKING NO: GEM200706008
 INVOICE NO: GEM/MAP-200803MEL
 PART NO: G118
 SAMPLING PLAN:
 ASME B18.18-2017/ASTM F1470-2018
 HEAT NO: 20601730
 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 | 0.4700 | 0.0600 | 0.0100 | 0.6100 | 0.0300 | 0.0120 | 0.0040 | 0.2200 |

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 | 3 PCS | JB/T 9151 | | 58.1000-60.0000 MM | 58.7800-59.1100 MM | 3 | 0 |
| SURFACE DISCONTINUITIES | 15 PCS | IS06157.3 | | | PASSED | 15 | 0 |
| WASHER THICKNESS | 3 PCS | JB/T 9151 | | 3.4000-4.6000 MM | 3.7800-4.0600 MM | 3 | 0 |
| WASHER INSIDE DIAMETER | 3 PCS | JB/T 9151 | | 33.0000-33.6200 MM | 33.2300-33.4900 MM | 3 | 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 | 11 PCS | IS0898.1 | | 26-45 HRC | 39.4-43 HRC | 11 | 0 |
| PLATING THICKNESS(μm) | 5 PCS | ASTM B568 | | >=53 | 74.32-83.7 | 5 | 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: