

Certificate of Conformance
SIFCO Process Solution

The solution identified below has been tested under controlled conditions and found to meet SIFCO Applied Surface Concepts specifications and Quality Assurance standards. This product does not contain, nor has it been contaminated with metallic mercury or mercury compounds. SIFCO ASC, LLC is a mercury free facility.

This product is free from all foreign materials that could result in foreign object damage to the equipment or process.

Capability of Meeting Specifications

SIFCO Process electroplates, when properly selected and applied, will meet the requirements of: AMS2451/10B, ASTM F519, MIL-STD-2197A (SH) and MIL-STD-865E.

| | | |
|------------------------|---|--------|
| Product Code | 5034 | |
| Product Description | Tin Zinc | |
| Batch Number | 2207018 | |
| Test Requirement | Actual Value | |
| pH | 8.72 | @ 20°C |
| Specific Gravity | 1.193 | @ 20°C |
| Metal Content | 16.82 Zn | g/L |
| | 32.90 Sn | g/L |
| Hydrogen Embrittlement | CONFORMS | |
| 200 Hour Fracture Test | Pass AMS 2451/10 Report Number: 22-75039 | |
| Solution Appearance | Colorless to Pale Yellow | |
| Date of Manufacture | July 28, 2022 | |
| Date of Expiration | July 28, 2023 | |



Quality Systems Engineer

08/15/2022
Date

"Specialists in Embrittlement Testing"

Date: August 10 2022

To: **SIFCO OH**
5708 Schaaf Road
INDEPENDENCE, OH 44131

Test Report: 22-75039

Reference P.O.: PO00008879
S/N 1, 2, 3, 4

Test: **NOTCH TENSILE HYDROGEN EMBRITTLEMENT**

Sample Identification: SAMPLES A, B, C, D:

Job / SN: SOLUTION CODE 5034 BATCH 2207018

Process: BRUSH TIN ZINC PLATE

PO Specification: AMS 2451/10B, ASTM F519 1A1

Test Method Scope: ASTM F519-18

Receive Date: Aug 01, 2022
Test Start Date: Aug 01, 2022
Test End Date: Aug 10, 2022

Sample Lot: 33H **Mfg.:** GREEN
Notched Ultimate Tensile Load: 9172 **Units:** LBS
Test Load: 6879 **Units:** LBS

Results: Conforms

The above identified notched tensile samples were subjected to a 200-hour sustained load test at a load of 75% of the Notch Ultimate Tensile Load (NUTL). Results above are applicable to submitted purchase order specifications. Additionally, results apply to the samples as received. Variances as applicable are noted at bottom right of report:

Report Revision: 1
Revision Description: 1 - Original



Testing performed under direct supervision of approved signatories per QM 001 ISO 17025 Quality Manual PARA 7.8.

Jeremy Riley Ops Mgr
Joshua Co Quality Mgr
Clint William Engr Tech

APPROVED
SMA 8/15/2022

Decision Rule: Per previously communicated and agreed, data has been supplied/reported as observed without accounting for measurement uncertainty.

Report invalid unless color seal present. Page 1 of 1