

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: AMS2451/10, MIL-STD-865E and ASTM F 519-18.

Product Code	4019
Product Description	Tin-Zinc LHE®
Batch Number	2110020
Test Requirement	Actual Value
pH	6.31 @ 20°C
Specific Gravity	1.205 @ 20°C
Metal Content	Sn 27.74 Zn 13.60 g/l
Solution Appearance	Yellow
Date of Manufacture	October 26, 2021
HE Certification Date	November 11, 2021 Lab Report# 21-71633
Date of Expiration	October 26, 2023



Quality Systems Engineer

11/23/2021

Date

"Specialists in Embrittlement Testing"

Date: November 11 2021
To: **SIFCO OH**
5708 Schaaf Road
INDEPENDENCE, OH 44131
Test Report: 21-71633
Reference P.O.: PO00008065
S/N 1 - 4
Test: **NOTCH TENSILE HYDROGEN EMBRITTLEMENT**
Sample Identification: SAMPLES A, B, C, D:
Job / SN: SOLUTION CODE 4019 BATCH 2110020
Process: BRUSH TIN ZINC PLATE
PO Specification: AMS 2451/10B, ASTM F519 1A1
Test Method Scope: ASTM F519-18
Receive Date: Nov 02, 2021
Test Start Date: Nov 02, 2021
Test End Date: Nov 11, 2021
Sample Lot: 39G **Mfg.:** GREEN
Notched Ultimate Tensile Load: 9054 **Units:** LBS
Test Load: 6791 **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



APPROVED

OMS 11/23/2021

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

Jeremy Riley **Joshua Cox** **Clint Williams**
Ops Mgr **Quality Mgr** **Engr Tech**

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