

## <u>Certificate of Conformance</u> 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	2301023	
Test Requirement	Actual Value	
рН	6.47	@ 20°C
Specific Gravity	1.202	@ 20°C
Metal Content	Sn 27.31 Zn 13.54	g/l
Solution Appearance	Yellow	
Date of Manufacture	January 11, 2023	
HE Certification Date	January 25, 2023 Lab Report# 23-77368	
Date of Expiration	January 11, 2025	
Dan de		02/27/2023
Quality Technician		Date

F 7.5.1-2

Revision 6

7/22/2013



Phone: 940-648-5828 OmegaResearchInc.com

"Specialists in Embrittlement Testing"

Date:

January 25 2023

To:

SIFCO OH

5708 Schaaf Road

INDEPENDENCE, OH 44131

Test Report:

23-77368

Reference P.O.:

PO00009387

S/N 1,2,3,4

Test:

NOTCH TENSILE HYDROGEN EMBRITTLEMENT

Sample Identification:

SAMPLES A, B, C, D:

Job / SN:

**SOLUTION 4019 BATCH 2301023** 

Process:

**BRUSH TIN ZINC PLATE** 

**PO Specification:** 

AMS 2451/10B, ASTM F519 1A1

**Test Method Scope:** 

ASTM F519-18

Receive Date:

Jan 16, 2023

**Test Start Date:** 

Jan 16, 2023

**Test End Date:** 

Jan 25, 2023

Sample Lot:

66H

Mfg.: GREEN

Notched Ultimate Tensile Load:

9216

Units: LBS

**Test Load:** 

6912

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:

**Revision Description:** 

1

1 - Original

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



A2LA Accredited Lab Mechanical, Metallurgical & Corrosion Testing