

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.

Product Code	<b>4019</b>
Product Description	<b>Tin-Zinc LHE®</b>
Batch Number	<b>2006017</b>
Test Requirement	Actual Value
pH	6.30 @ 20°C
Specific Gravity	1.205 @ 20°C
Metal Content	Sn 28.52 Zn 13.37 g/l
Solution Appearance	Yellow
Date of Manufacture	June 9, 2020
HE Certification Date	June 20, 2020 Lab Report# 20-65764
Date of Expiration	June 9, 2022



\_\_\_\_\_  
Quality Systems Engineer

06/23/2020

\_\_\_\_\_  
Date



"Specialists in Embrittlement Testing"

**Date:** June 22 2020  
**To:** SIFCO OH  
5708 Schaaf Road  
INDEPENDENCE, OH 44131  
**Test Report:** 20-65764  
**Reference P.O.:** PO00006530  
S/N 1-4  
**Test:** NOTCH TENSILE HYDROGEN EMBRITTLEMENT  
**Sample Identification:** SAMPLES A, B, C, D:  
**Job / SN:** SOLUTION 4019 BATCH 2006017  
**Process:** BRUSH TIN ZINC  
**PO Specification:** AMS2451/10B, ASTM F519  
**Test Method Scope:** ASTM F519-18  
**Receive Date:** Jun 11, 2020  
**Test Start Date:** Jun 11, 2020  
**Test End Date:** Jun 20, 2020  
**Sample Lot:** 38F **Mfg.:** GREEN  
**Notched Ultimate Tensile Load:** 8815 **Units:** LBS  
**Test Load:** 6611 **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** **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



**APPROVED**  
SMB 6/23/2020