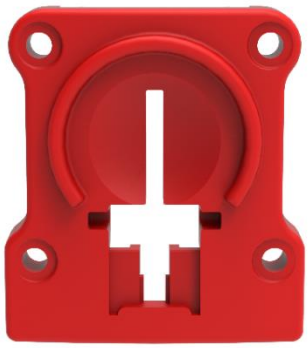
LIFESAVING SYSTEMS CORPORATION

LSC Test Report Number: F-730-930-03
Revision: A

Solvent Exposure Test Report

Nonmetallic Hardware P/N: 930-03



PROPRIETARY & CONFINDENTIAL

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OWNED BY LIFESAVING SYSTEMS AND MAY NOT BE DUPLICATED, COMMUNICATED TO OTHER PARTIES OR USED FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN PERMISSION OF LIFESAVING SYSTEMS CORP.

Prepared by: Thomas Beach
Thomas Beach, Engineering

Date: 01/25/2021

Reviewed by: Mario Vittone
Mario Vittone, Management

Date: 01/25/2021

Document History				
Revision	**Issue Date**	**Description of Revision/Modification**	**Revised by**	**Approved by**
A	25-JAN-21	Initial Release	-	

Table of Contents

PURPOSE: 4
ACRONYMS AND ABBREVIATIONS: 4
TEST FACILITY: 4
REFERENCES: 4
SUMMARY OF TESTS PERFORMED & RESULTS: 5
SECTION 1- TEST CONDITIONS & EQUIPMENT: 6
1.1 Laboratory Ambient Conditions 6
1.2 Hazard Materials 6
1.3 Equipment 6
SECTION 2- TEST PROCEDURE: 7
SECTION 3- ANALYSIS OF RESULTS 8
SECTION 4- PHOTOGRAPHS 9

PURPOSE:

This report documents the results of the solvent resistance test performed on the nonmetallic hardware of the #930 Quad-LOK release device. The tests described herein were performed in accordance with the applicable requirements listed in SAE International Aerospace Standard (AS) 8043A, Restraint Systems for Civil Aircraft, issued March 2000, as amended by Appendix 1 of TSO-C167.

ACRONYMS AND ABBREVIATIONS:

LSC – Lifesaving Systems Corp.
N/A – Not Applicable
P/N – Part Number

TEST FACILITY:

Testing and inspection were performed at Lifesaving Systems Corporation's (LSC) manufacturing facility located in Apollo Beach, Florida by LSC personnel.

REFERENCES:

Technical Standard Order TSO-C167	*Personnel Carrying Device Systems (PCDS), also known as Human Harnesses*, dated June 9th, 2004
SAE International Aerospace Standard (AS) 8043A	*Restraint Systems for Civil Aircraft, issued March 2000*

SUMMARY OF TESTS PERFORMED & RESULTS:

Section	*Solvent Material*	*Results*
3	Acetone	No signs of deterioration or deformity
	Lacquer Thinner	No signs of deterioration or deformity
	Methyl Ethyl Ketone	No signs of deterioration or deformity

SECTION 1- TEST CONDITIONS & EQUIPMENT:

1.1 Laboratory Ambient Conditions

18 to 24˚C (65 to 75˚F) and 45 to 55% humidity

1.2 Hazard Materials

Item	*Hazard Materials*
1	Acetone
2	Lacquer Thinner
3	Methyl Ethyl Ketone

1.3 Equipment

Item	*Equipment*
1	Container
2	3mm wire mesh
3	Metal dish

SECTION 2- TEST PROCEDURE:

1. Allow component (#930-03) to be stabilized under laboratory ambient conditions for 6 to 12 hours.

2. Expose the sample to each solvent vapor for at least 6h at 21 to 27˚C (70 to 80˚F).

3. Use separate assemblies for exposure to each of the following solvents.
   - Lacquer Thinner
   - Methyl Ethyl Ketone
   - Acetone

4. Place Assemblies 25mm ± 12mm (1.0in ± 0.5in) above container solvent level. Solvent depth to be at least 12mm (0.5in).

5. Suspend items on 3mm (0.125in) wire mesh such that vapor has access to all components. Cover container with flat, vented plate.

6. Remove items after 6h, visually inspect.

7. Inspect items for any signs of deterioration or deformity.

8. Record results as PASS or FAIL.

9. Repeat test for each solvent specified.

SECTION 3- ANALYSIS OF RESULTS

Examination Table:

Solvents	Part Number	Date	Time	Pass/Fail	Comments
Acetone	930-03	12/3/2020	8:00am Start 2:30pm Stop	PASS	No signs of deterioration or deformity
Lacquer Thinner	930-03	12/4/2020	8:00am Start 2:30pm Stop	PASS	No signs of deterioration or deformity
Methyl Ethyl Ketone	930-03	12/7/2020	8:00am Start 2:30pm Stop	PASS	No signs of deterioration or deformity

SECTION 4- PHOTOGRAPHS



Solvents used for testing

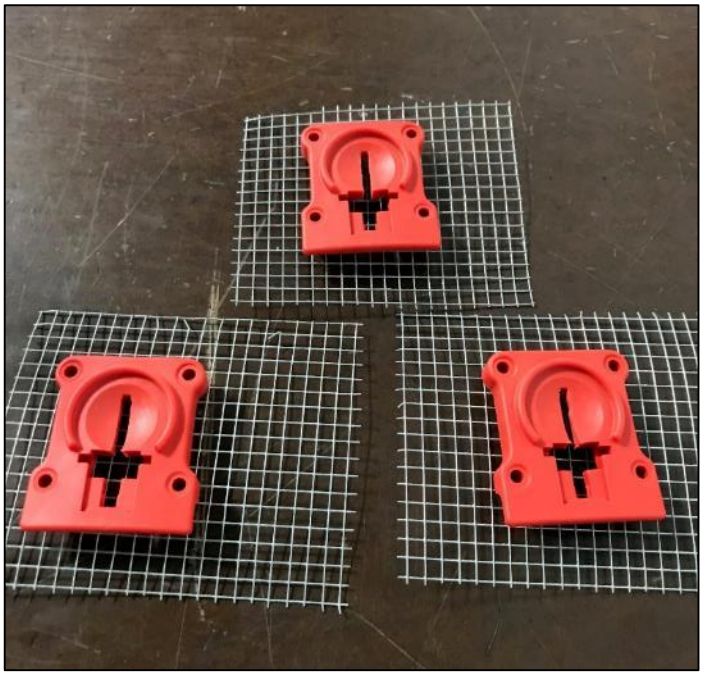


Solvent depth of at least 0.50”

Component distance is 1.5”



Typical setup of Test



Post Solvent Test

(No deterioration or deformity)