



財團法人金屬工業研究發展中心  
機械測試實驗室

40768 台中市工業區 37 路 25 號 TEL : (04)23502169

Metal Industries Research & Development Centre

Mechanical Testing Laboratory

No.25, 37th Road, Industrial Park, Taichung City 40768, Taiwan (R.O.C.)

試驗報告 TEST REPORT



Testing Laboratory

0099

TEST REPORT NO. : O0526163-T01

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Customer :	ZHEJIANG OUFU CONTAINER SEAL CO., LTD. Building 25, NO.1336 HANGFU ROAD, CHONGFU TOWN, TONGXIANG CITY, JIAXING CITY, ZHEJIANG PROVINCE, CHINA 314511	
	NovaVision, LLC 524 EAST WOODLAND CIRCLE BOWLING GREEN, OH 43402 USA	
Subject :	Freight containers Mechanical seals classification Testing	
Name of Article :	CABLE SEALS	
Type :	Zhejiang Oufu	OF-CS3.5
	NovaVision, LLC	MS-CS3.5
Received Date :	2025/05/26	
Test Dates :	2025/06/16~2025/06/20	
Date Issued :	2025/06/20	



CHIANG, Ching-Liu

報告簽署人 (Report Authorized Person)

SU, Yuan-Da

檢驗員 (Inspector)

Note :

- (1) The operation and testing of MIRDC laboratory are in conformity to the requirements of ISO/IEC 17025 : 2017  
(Taiwan Accreditation Foundation, Accreditation No. : 0099)
- (2) This report is responsible for designated samples only.
- (3) Reproduction of all or parts this report without a written approval is strictly prohibited.
- (4) Decision rules of conformance statement of this test report, do not consider uncertainty of measurement.



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1. ABSTRACT

Customer :	ZHEJIANG OUFU CONTAINER SEAL CO., LTD. Building 25, NO.1336 HANGFU ROAD, CHONGFU TOWN, TONGXIANG CITY, JIAXING CITY, ZHEJIANG PROVINCE, CHINA 314511	
	NovaVision, LLC 524 EAST WOODLAND CIRCLE BOWLING GREEN, OH 43402 USA	
Name of Article :	CABLE SEALS	
Type :	Zhejiang Oufu	OF-CS3.5
	NovaVision, LLC	MS-CS3.5
Serial No. :	01~25	
Quantity Tested :	25	
Specification No. :	ISO 17712:2013(E)	

Test Item	Section Number	Results
Tensile Test	5.2	See Page 3
Shear Test	5.3	See Page 5
Bending Test	5.4	See Page 6
Impact Test room temp	5.5	See Page 7
Impact Test reduced temp	5.5	See Page 7



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2. Tensile Test :

Testing Instrument : Universal Testing Machine (No.TG0103)

Ambient Temp. : 19°C ; 66% R.H.

Specification No. : ISO 17712:2013(E)

Result :

**Tensile Test Section 5.2**

The seal was gripped in a tensile machine and a pull force applied.

Specimen No.	Requirement Load to failure	Result kN	Seal classification
01	10.0 kN : High security seal 2.27 kN : Security seal < 2.27 kN : Indicative seal	11.9	High security seal (H)
02		11.6	High security seal (H)
03		11.5	High security seal (H)
04		11.7	High security seal (H)
05		12.0	High security seal (H)



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Universal Testing Machine



Tensile Set up







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3. Shear Test

Testing Instrument : Universal Testing Machine (No.TG0103)

Ambient Temp. : 19°C ; 66% R.H.

Specification No. : ISO 17712:2013(E)

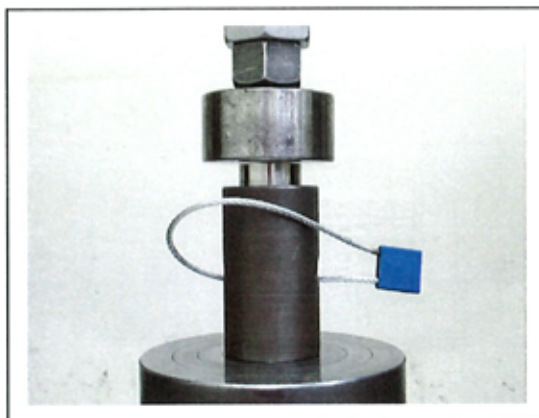
Result :

**Shear Test Section 5.3**

The seal was fixed in a universal testing machine to withstand cutting with shearing blades and a compressive load applied slowly until the seal is severed.

Specimen No.	Requirement Load to failure	Result kN	Seal classification
06	3.336 kN : High security seal 2.224 kN : Security seal <2.224 kN : Indicative seal	6.800	High security seal (H)
07		7.097	High security seal (H)
08		7.479	High security seal (H)
09		7.276	High security seal (H)
10		6.898	High security seal (H)

Shear Set up



**SAFETY PRECAUTIONS** - Do not exceed a shear force greater than 8900N(2001lbf). If the specimen has not failed at that force, halt the test and unload the test equipment. Record a shear force of 8896N (2000 lbf). Sudden and violent rupture of the test specimen can endanger personnel, equipment and property.



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#### 4. Bending Test

Testing Instrument : Bending Tester

Ambient Temp. : 19°C ; 66% R.H.

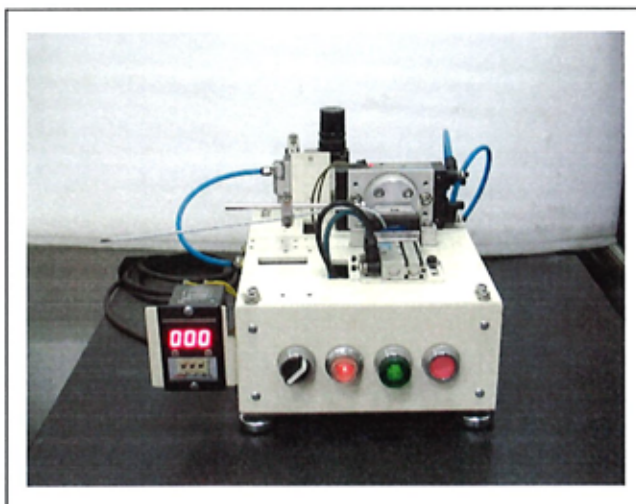
Specification No. : ISO 17712:2013(E)

Result :

#### Bending Test Section 5.4

Fix the locking end and flex the material adjacent to this fixed end repeatedly through an arc of 180° until failure

Specimen No.	Requirement Cycles to failure	Result Cycles	Seal classification
11	501 : High security seal 251 : Security seal <251 : Indicative seal	> 501	High security seal (H)
12		> 501	High security seal (H)
13		> 501	High security seal (H)
14		> 501	High security seal (H)
15		> 501	High security seal (H)



Bend Set up



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## 5. Impact Test

Testing Instrument :

5.1. Impact Tester

5.2. Programmable Low Temp. Tester (No.SG5501)

Specification No. : ISO 17712:2013(E)

### Impact Test Section 5.5

The impact test is performed at 18 degrees Celsius and minus 27 degrees Celsius of temperature.  
The impact load is applied at the locking mechanism of the seal in the direction opposite the direction used in locking the seal.

**Result :**

Impact Test at 18±3°C					
Specimen No.	Requirement	Result Joule			Seal classification
		13.56	27.12	40.68	
16	40.68J : High security seal 27.12J : Security seal <27.12J : Indicative seal <b>5 impacts at each load</b>	Pass	Pass	Pass	High security seal (H)
17		Pass	Pass	Pass	High security seal (H)
18		Pass	Pass	Pass	High security seal (H)
19		Pass	Pass	Pass	High security seal (H)
20		Pass	Pass	Pass	High security seal (H)

Impact Test at -27±3°C					
Specimen No.	Requirement	Result Joule			Seal classification
		13.56	27.12	40.68	
21	40.68J : High security seal 27.12J : Security seal <27.12J : Indicative seal <b>5 impacts at each load</b>	Pass	Pass	Pass	High security seal (H)
22		Pass	Pass	Pass	High security seal (H)
23		Pass	Pass	Pass	High security seal (H)
24		Pass	Pass	Pass	High security seal (H)
25		Pass	Pass	Pass	High security seal (H)





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Impact Set up





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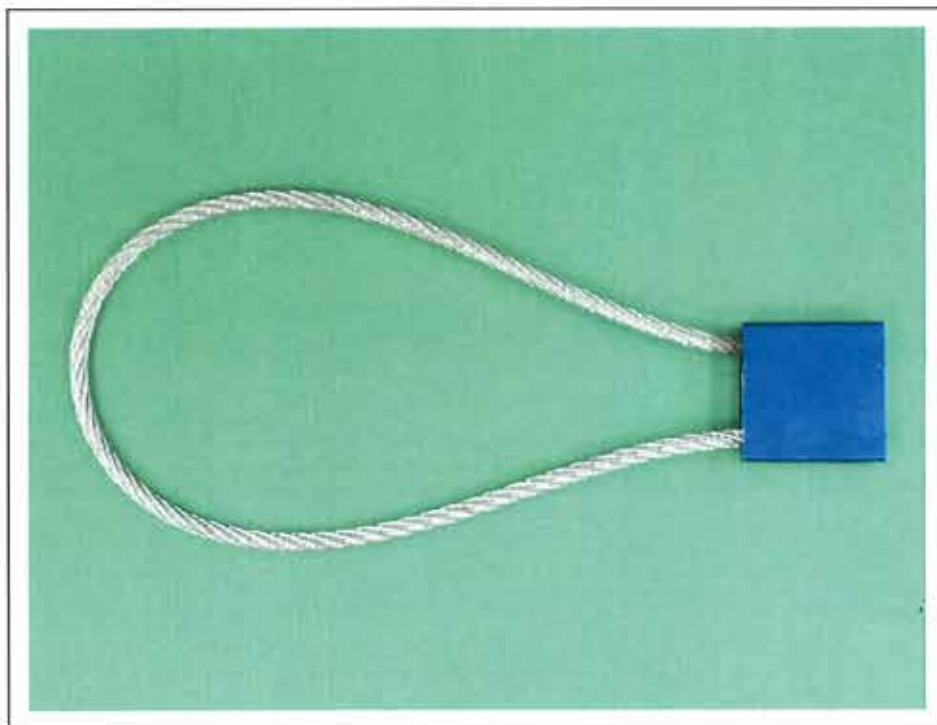
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	NovaVision, LLC	MS-CS3.5

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