

**TEST REPORT NO. 53628-11**



TEST, ENGINEERING AND RESEARCH GROUP, SAN BERNARDINO

Pelican Products, Inc.  
23215 Early Avenue  
Torrance, CA 90505

Our Job No. DE 53628  
Contract —  
Your P.O. No. 43647  
Date November 1, 2006

This report contains true and correct data obtained in the performance of the test program set forth in your purchase order. Test methods, results, and equipment used are recorded on these data sheets.

Where applicable, instrumentation used in obtaining this data has been calibrated using standards which are traceable to the National Institute of Standards and Technology.

**SUMMARY:**

One Case, Part No. 1660-101-110 (no serial number) was subjected to Dust IP6X Category 2 Testing and Immersion IPX7 Testing in accordance with CEI IEC 529 specifications. Upon completion of the tests, no visible evidence of damage to the test specimen was observed. Complete test details, including photos and equipment lists, are contained in this report.

Test Dates: 10/12/06-10/13/06

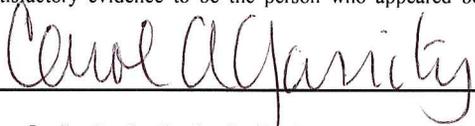
STATE OF CALIFORNIA }  
COUNTY OF SAN BERNARDINO } SS.

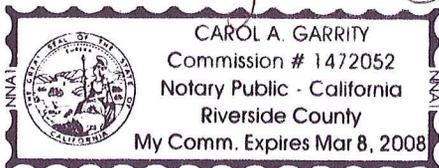
Douglas G. Anderson

, being duly sworn, deposes and says: That the information contained in this report is the result of complete and carefully conducted tests and is to the best of his knowledge true and correct in all respects.



SUBSCRIBED and sworn to before me this 1 day of Nov, 2006 by Douglas G. Anderson personally known to me or proved to me on the basis of satisfactory evidence to be the person who appeared before me.





**TEST OPERATIONS**

TEST ENGINEER H. Pemberton 11/1/06  
H. Pemberton

DEPT. MANAGER Philip Knoll 11/1/06  
P. Knoll

QUALITY ASSURANCE G. Montgomery  
G. Montgomery





# DATA SHEET

Test Title Dust IP6X Category 2

Customer Pelican Products, Inc. Job No. 53628  
Specimen Case Date Started 10/12/2006  
Part No. 1660 Serial No. N/A Date Comp. 10/12/2006  
Spec. CEI IEC 529 Par. 13.4 & 13.6 Photo Yes Amb. Temp. 15°C to 35 °C

### Requirements:

Dust Concentration: 2 Kg per cubic meter test chamber volume  
Duration: 8 hours

### Test Method:

Place the test specimen in a test chamber. Establish a dust concentration of 2 Kg per cubic meter of test chamber volume. Expose the test specimen to this dust environment for 8 hours.

Remove accumulated dust from the test specimen by brushing, wiping, or shaking, taking care to avoid introducing additional dust into the test item. Do not remove dust by either air blast or vacuum cleaning. Perform a visual examination for evidence of damage or deterioration.

### Test Results:

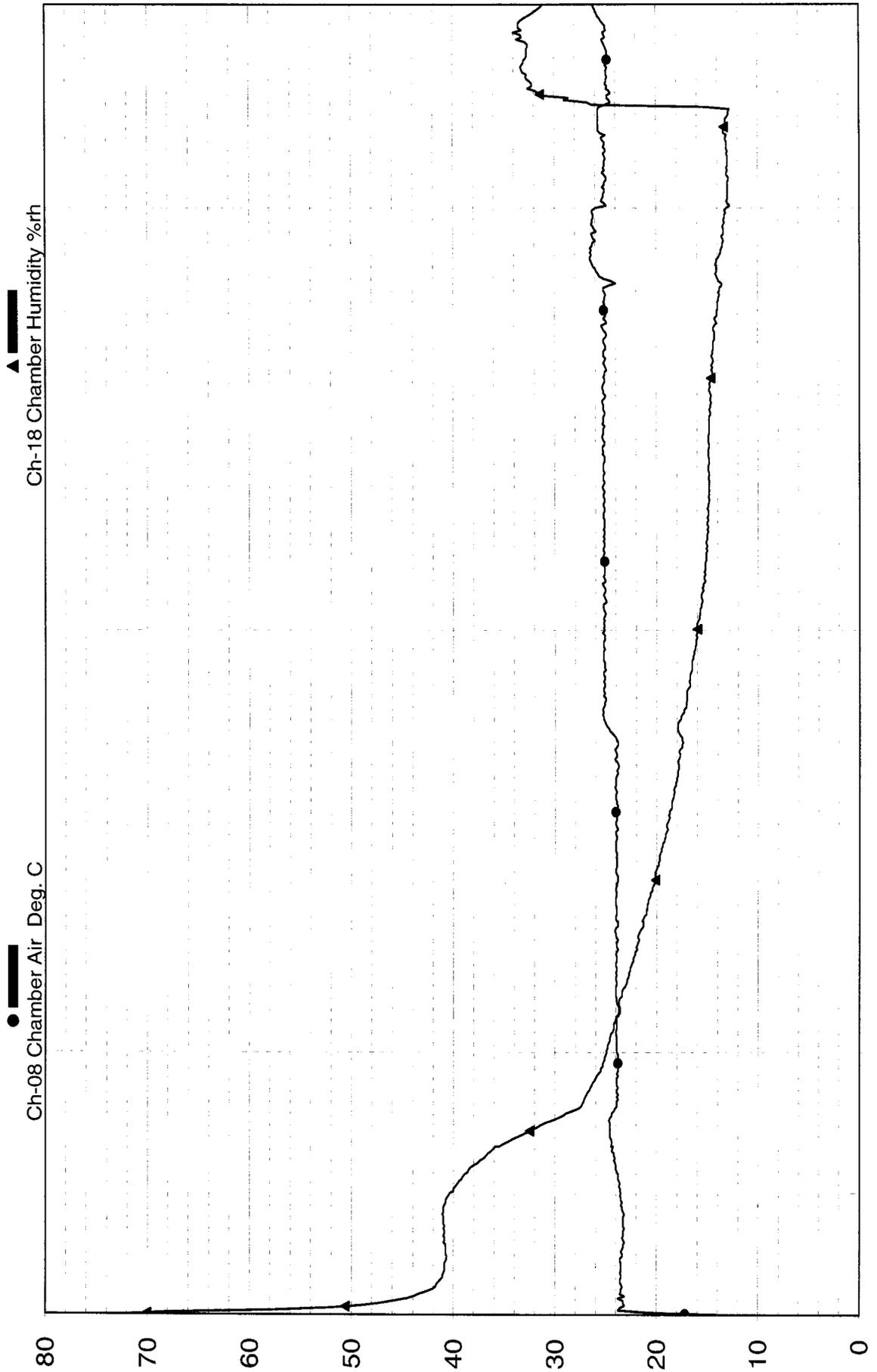
All testing was performed according to the Test Methods and Requirements stated above. Upon completion of the test, no visual evidence of dust intrusion was observed inside the test specimen. No visible evidence of damage to the test specimen was observed upon completion of testing.



**Pelican J/ N-53628**  
Cases # 1620 , 1660

File: D:\WyleDL\53628C103.prn

10-23-2006 11:35:30 DL2k5



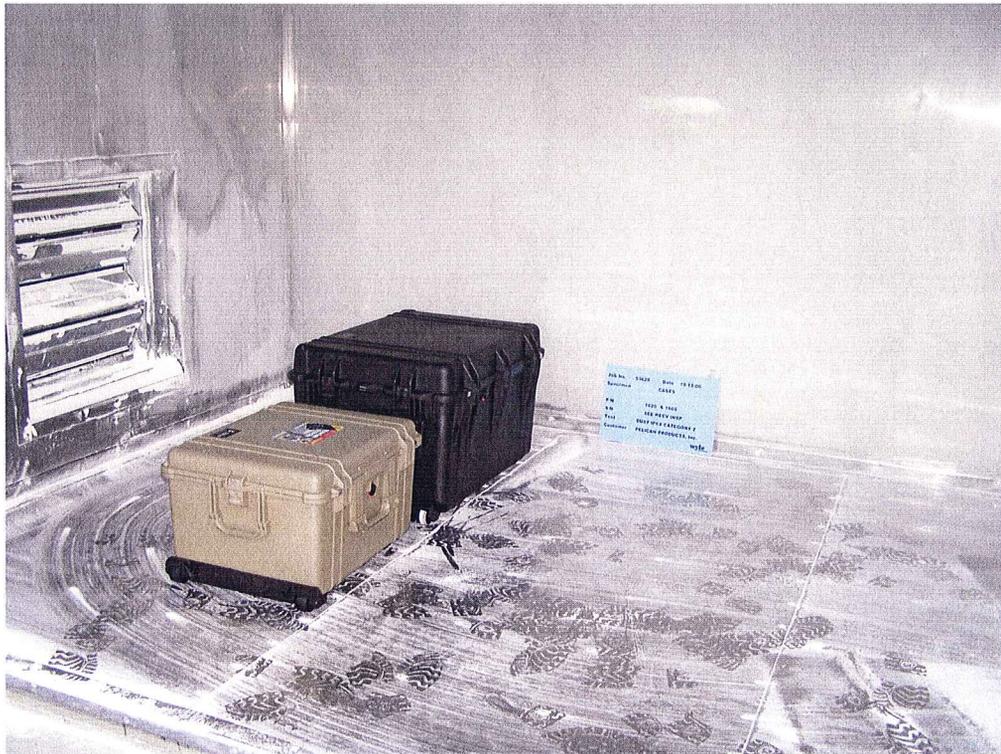
3PM

12PM

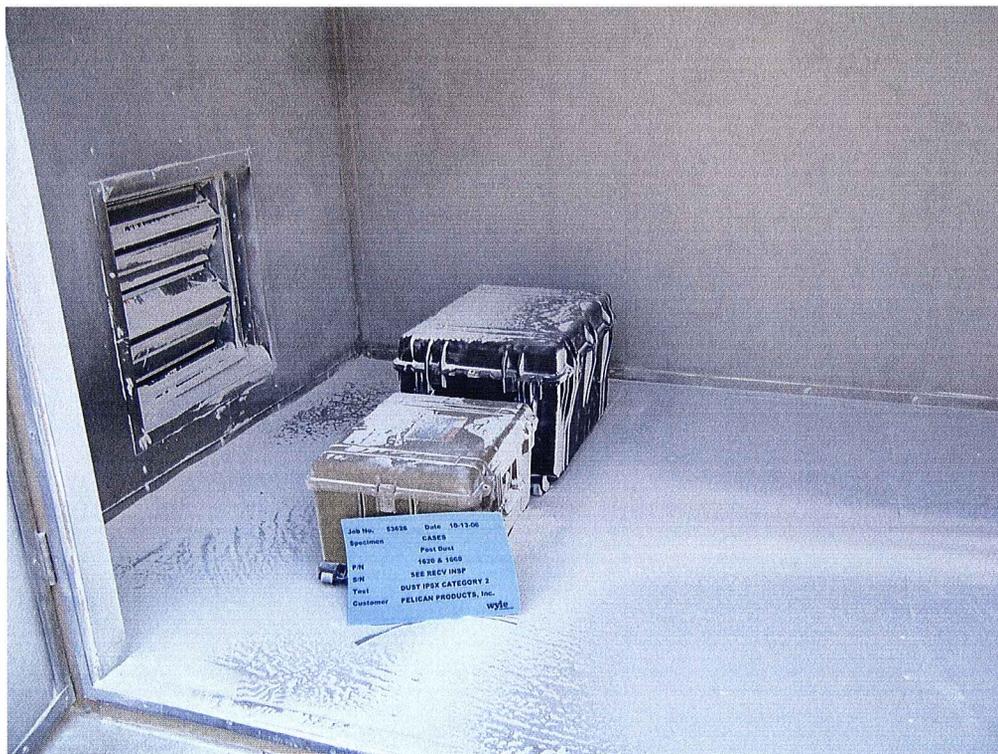
9AM

12 Thu Oct 2006

Dust IP6X Category 2



*Photograph 1  
Dust Test Setup (Tested with other Pelican Product Items)*



*Photograph 2  
Post Dust Test*



TEST TITLE: Dust (IPX6 Category 2)

CUSTOMER: Pelican Products, Inc Job No.: 53628 Date: 10-10-2006  
 Specimen: Cases Technician: C. Natzic  
 Part No.: See Recv. Insp. Serial No.: See Recv. Insp. Engineer: H. Pemberton

*12/10/06*

*ITP*

*10/10/06*

EQUIPMENT	MANUFACTURER	MODEL #	RANGE	WYLE #	CALIBRATION		ACCY.
					LAST	DUE	
Chamber - Environmental	Wyle	Dust	-60 to +180°F / 11' x 7' x 7' / LN2	W50716	* System	Calibration *	Mfg. Spec.
Controller - Chamber	Wattow / Omega	922 / CN9000	-100° to 240°F	W50708	* System	Calibration *	Mfg. Spec.
Multimeter/DAS	Keithley	2700	10VDC & Type T TC's	W13690	12/01/2005	12/01/2006	±2%
Multiplexer Module	Keithley	7700	20 Channels Volts or TC's	W14903	12/01/2005	12/01/2006	Mfg. Spec.
Rh Probe	Vaisala	HMP 135Y	0-100%	W11829	05/31/2006	11/30/2006	3%
Stopwatch	Cole Parmer	365530	10 hour	W13604	07/28/2006	01/28/2007	.1 sec

Where applicable, the listed test equipment has been calibrated using standards which are traceable to the National Institute of Science & Technology. Certificates and reports of all calibrations are retained in the Wyle Laboratories QA files and are available for inspection upon request. \*Equipment identified as System Calibration are verified prior to use.



# DATA SHEET

Test Title Immersion (IPX7)

Customer Pelican Products, Inc. Job No. 53628  
Specimen Case Date Started 10/13/2006  
Part No. 1660 Serial No. N/A Date Comp. 10/13/2006  
Spec. CEI IEC 529 Par. 14.2.7 Photo Yes Amb. Temp. 75° ± 15 °F

**Requirements:**

Water Level: Test specimens with a height less than 850 mm (33.46 inches) has the lowest point of the test specimen 1000 mm (39.37 inches) below the surface of the water surface. Test specimens with a height equal to or greater than 850 mm (33.46 inches) has the highest point of the test specimen 150 mm (3.9 inches) below the surface of the water

Water Temperature: Water temperature maintained at not less than 5 °K (10 °F) below the specimen temperature

Soak Duration: 30 minutes

**Test Method:**

Visually inspect the test specimen. Place the test specimen in a submersion tank. Test specimens with a height less than 850 mm (33.46 inches) has the lowest point of the test specimen 1000 mm (39.37 inches) below the surface of the water surface. Test specimens with a height equal to or greater than 850 mm (33.46 inches) has the highest point of the test specimen 150 mm (3.9 inches) below the surface of the water.

Verify the water temperature is not less than 5 °K (10 °F) below the specimen temperature. Allow the test specimen to soak for 30 minutes.

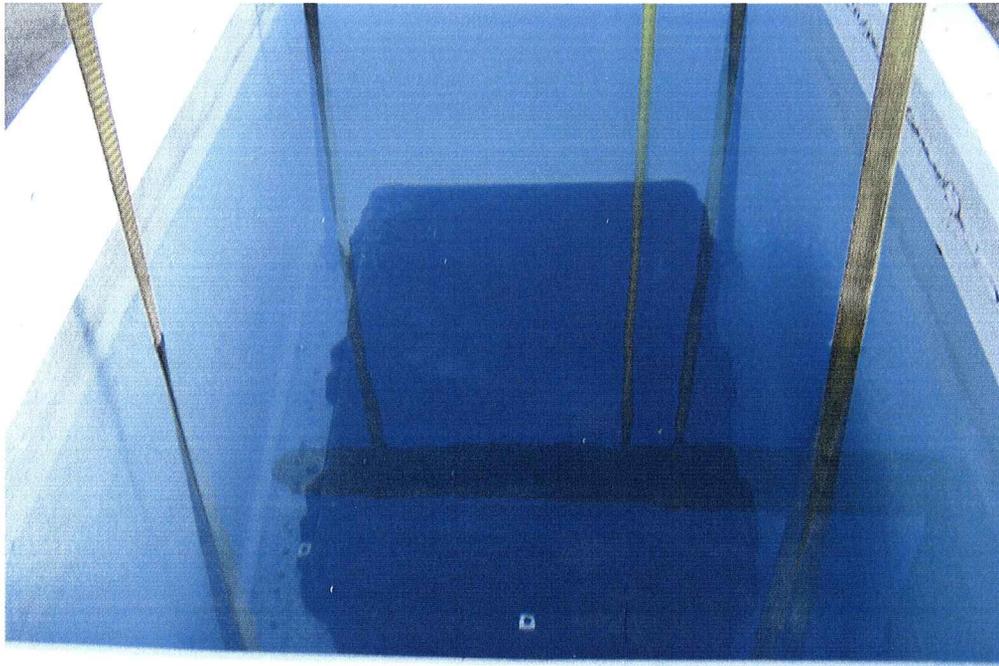
Remove the test specimen from the tank. To check for the presence of moisture inside the specimen the specimen is to be cut open per customer directions. Document all results.

**Test Results:**

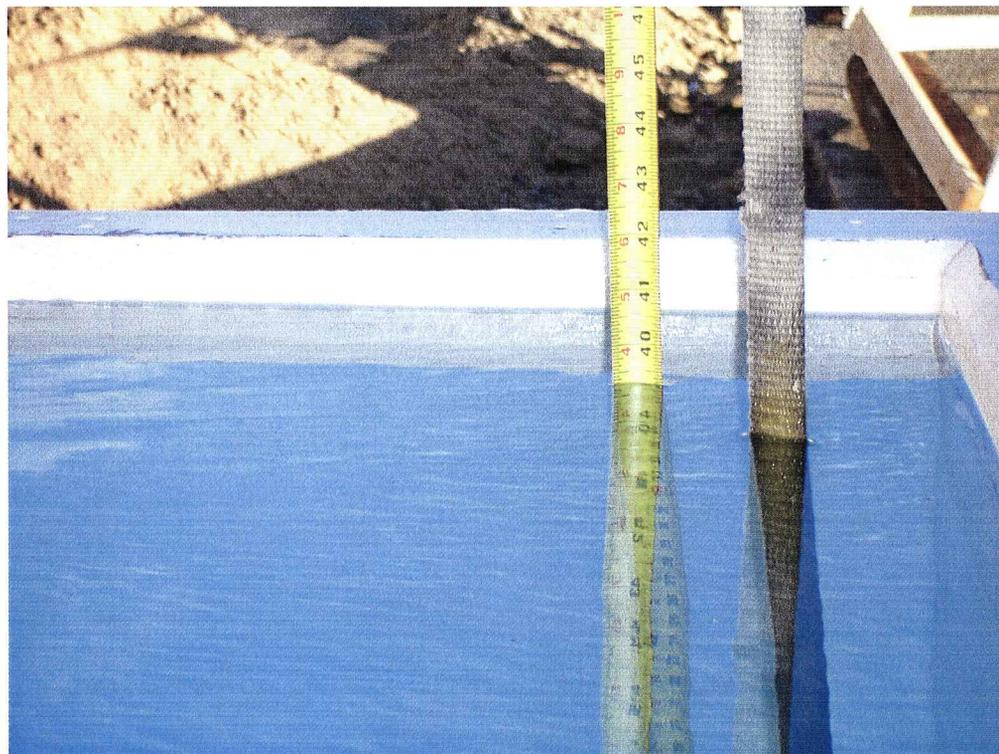
The test was performed in accordance with the Test Method and Requirements stated above. Weights and sand bags totaling 530 lbs were placed inside the test specimen to eliminate buoyancy. Upon completion of the test, no water was observed inside the test specimen. No visible evidence of damage to the test specimen was observed upon completion of testing.



*Photograph 3  
Immersion Test Setup*



*Photograph 4*  
*Immersion Test Setup*



*Photograph 5*  
*Immersion Test Setup*

TEST TITLE: Immersion (IPX7)

CUSTOMER: Pelican Products, Inc Job No.: 53628 Date: 10-11-2006

Specimen: Cases Technician: S. Paysen <sup>SP</sup> 10/11/06

Part No.: See Recv. Insp. Serial No.: See Recv. Insp. Engineer: H. Pemberton <sup>HP</sup> 10/11/06

EQUIPMENT	MANUFACTURER	MODEL #	RANGE	WYLE #	CALIBRATION		ACCY.
					LAST	DUE	
Cylinder Graduated	Pyrex	3025	0 - 250 ml	W13057	09/14/2006	09/14/2009	0.1%
Scale	Certified Scale	TR-1-NK	1000 lbs.	W13126	05/08/2006	05/08/2007	.2 lbs.
Stopwatch	Cole Parmer	365530	10 hour	W13604	07/28/2006	01/28/2007	.1 sec
Tape Measure	Keson	100	100 ft.	W12590	06/26/2006	06/26/2007	Mfg. Spec.
Temperature - Digital Indicator	Tegam	819	-300 to +700 °F	W13596	07/28/2006	01/28/2007	.1%

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