



WTC 2  
 120 rte des Macarons  
 06560 Valbonne • France  
 Tel : +33 4 92 92 88 89  
 Fax : +33 4 92 38 01 04  
 E-mail : [info@orsfr.com](mailto:info@orsfr.com)  
 Web : <http://www.orsfr.com>

# IVA SUBMISSION FORM

## Internal Vapor Analysis

Client :  
 Company :  
 Address :  
  
 Tel :  
 Fax :  
 E-mail :

Date : \_\_\_\_\_ Purchase Order : \_\_\_\_\_ **J**

LOT IDENTIFICATION			
Lot Reference	Package Type	Number of Samples	Serial Numbers
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

### HERMETICITY TESTING

**Helium Fine Leak**  
 Conditions : \_\_\_\_\_ psia \_\_\_\_\_ hrs

**Perfluorocarbon Gross Leak**  
 Conditions : \_\_\_\_\_ psia \_\_\_\_\_ hrs

Measured leak rates are indicated on the IVA test report

### LEAK SITE IDENTIFICATION

**Helium Sniff Testing**

**Fluorescent Dye Impregnation and Cross-Sectioning**

Test reports include pictures and comments

### INTERNAL VAPOR ANALYSIS

*The standard options are indicated by ⇨*

**See Reverse side for description of test methods.**

⇨  SOP MEL-1053 : Internal Vapor Analysis (Commercial Practice)

SOP MEL-1018 : Internal Water Vapor Content - DSCC Suitability for Military Devices  
NB : As part of the Laboratory Suitability Program ORS must summarize the Pass/Fail data (Moisture < 5000 ppm) in its retention report to DSCC.  
 All records are subject to audit and inspection by the U.S. Government.

SOP MEL-1070 : Gas Analysis of Sealing Chamber Atmosphere  
NB : sampling cylinders available from ORS.

SOP MEL-1080 : Identification of UNKNOWN volatile organic compounds by IVA/GC/MS.

**Prebake**

⇨  16-24 hrs @ 100°C  None  Other : \_\_\_\_\_  
Prebake is Mandatory for SOP MEL-1018

**Test Quantity**

⇨  All  Other : \_\_\_\_\_

**Device Fill Gas**

Nitrogen  Nitrogen/Helium  
 Other :

**Absolute Internal Pressure**

⇨  ~1Atm  Other :

**Specific Puncture Site**

⇨  No  Yes, location :

**Wall Thickness at Puncture Site**

Unknown  mm :

**Anticipated Test Results**

⇨  Email  Fax

### ADDITIONAL INSTRUCTIONS

\_\_\_\_\_

**RETURN SHIPMENT** ⇨  Standard  Other :

## DESCRIPTION OF TEST METHODS

### **SOP MEL-1053: Internal Vapor Analysis - Commercial Practice**

This test procedure is used for testing hermetic devices in accordance with ORS' Commercial Practice for Internal Vapor Analysis. This test method extends the scope and capabilities of traditional Mil-Std 883, method 1018 analysis. It permits variations to the procedure and/or device test conditions to achieve the best test conditions for specific client applications. Client specific protocols may be established for maximum accuracy and sensitivity for product monitoring applications, process development, R&D, materials evaluations and Failure Analysis projects. The data is not subject to inclusion in the annual retention report to DSCC and all records regarding these tests are confidential. Contact ORS for a copy of this extended test method.

### **SOP MEL-1018: Internal Water Vapor 1018 - DSCC Suitability for Military Devices**

This test procedure is used exclusively for testing hermetic devices in accordance with Mil-Std-883 or 750, TM 1018, Procedure 1 per the conditions of "Suitability" status granted by the Defense Supply Center Columbus (DSCC). No variations are permitted to this procedure or to the device test conditions. Furthermore, all tests performed per this procedure are subject to inclusion in the annual retention report to DSCC and all records regarding these tests are subject to audit and inspection by the U.S. Government.

### **SOP MEL-1070: Gas Cylinder Analysis of Sealing Chamber Atmospheres**

This test method quantitatively measures the process sealing gases sampled from sealing chambers and/or gas supply lines using a specially prepared sampling cylinder. Sampling procedures are described in the instructions provided with the sampling cylinders. Contact ORS for availability and rental of sampling cylinders.

### **SOP MEL-1080: Identification of Unknown volatile organic compounds by IVA/GC/MS**

This test method is used to identify unknown volatile compounds that may be detected in IVA test methods (identified as UNKNOWN compound(s)) but may not be conclusively identified due to the complexity or trace quantity of the mass spectra. The method uses IVA inlet technology interfaced with GC/MS. Standard hermetic devices or individual materials sealed in glass ampoules may be analyzed. The technique is useful to understand the chemical processes of material outgassing and chemical reactions from environmental stress.

## IMPORTANT REMINDERS

- Please provide a valid Purchase Order (Number, Amount, Shipping costs taken into account, ...).
- Please be sure to specify all prebake requirements. Note : packages containing organic materials or dessicants require a prebake of 16-24 hours at 100°C.
- Please use the check boxes to indicate all the complementary information. Specify any special instruction that should be followed during sample handling, testing or shipment.
- Unless otherwise requested, test reports and sample returns will be returned using our regular carrier. Email of test reports are sent as soon as they are ready. This Email may be replaced by a fax upon special request (note : results sent by email are traveling on the Internet without any special security).
- All shipping and handling fees associated with the transport of samples to and from our testing facility (Sophia Antipolis in France) are the responsibility of the client.
- Standard tests and analyses are completed within 2 working days beginning on the reception of the samples and needed additional information. Prebake, methods development and extraordinary applications may extend this time frame.
- On-site visits are encouraged and we welcome your personal involvement during sample analysis.

For further technical information, please contact the Internal Vapor Analysis Manager at +33 4 92 92 88 89. or by Email at [info@orsfr.com](mailto:info@orsfr.com)

You can also visit our web site  
<http://www.orsfr.com>  
for additional information and literature