LABORATOIRE D'ESSAIS
SERCOVAM

B.P. 10 - Chemin de Marticot - 33611 Cestas Cedex
Tél. +33.5.57.97.02.33 - Télécopie +33.5.57.83.53.73
e-mail: contact@sercovam.com - internet : www.sercovam.com
S.A.S. au capital de 407 085 € RC Bordeaux B 341 929 925
N° TVA CEE FR 43 341 929 925 N° SIRET : 341 929 925 000 20

BON DE LIVRAISON RAPPORT

BL N°163267

Votre cde No 1 Réf. 0606-12/02 du 06/06/2012

Date d'envoi : **17/07/2012**

Responsable : **Fabien SPITTLER**

Etude No : **107572 .**

Destinataire: No Client : 25148

BIMED TEKNIK TURQUIE

M. SECIK PALA

S.S. BAKIR VE PIRINÇ SAN.SIT.ORKIDE CAD.NO:15
PK 34520 BEYLIKDÜZÜ-ISTANBUL
TURQUIE

Tél : 00902128757376233 / Fax :

e-mail : secil@bimedteknik.com

Désignation

Quantité	Description
1	**RAPPORT D'ESSAIS réf. RES 107572 .**

Type d'expédition **E-MAIL**

LABORATOIRE D'ESSAIS
SERCOVAM

BIMED TEKNIK TURQUIE
M. SECIK PALA
S.S. BAKIR VE PIRINÇ SAN.SIT.ORKIDE
CAD.NO:15
PK 34520 BEYLIKDÜZÜ-ISTANBUL
TURQUIE

Cestas, le 17 juillet 2012

secil@bimedteknik.com

RAPPORT D'ESSAIS *TEST REPORT*

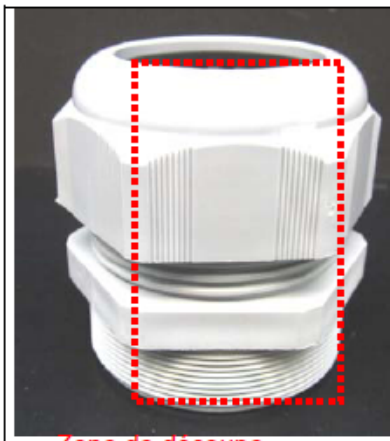
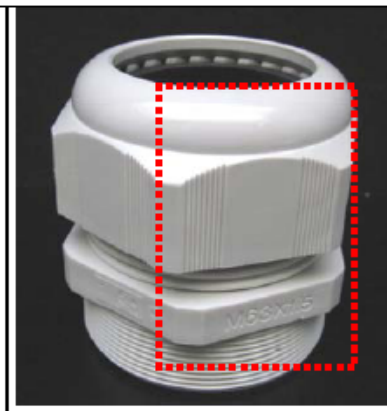
RES 107572 .

Nos Réf. NV/CS/FREM/132338/RES 107572 .

Référence Client *Customer's reference*	-
Référence du rapport *Test report reference*	**RES 107572 .**
Objet de l'essai *Test object*	**UV LIGHT AND WATER TEST** *UV LIGHT AND WATER TEST*
Norme / Méthode / Cdc Client *Standard / Test method / Customer's specification*	**CONDITIONS CLIENT** / Customer's requirements **UL514B § 8.26.7**

Technicien Production *Production Technician*	Chef d'Unité UV *UV Unit Manager*
Alexis FREMONT	Christine SORRAING
Non valide sans code de sécurité Invalid without security code Code de sécurité *Security Code:* **F222B494**	P/O C. DUPUCH Non valide sans code de sécurité Invalid without security code Code de sécurité *Security Code:* **E183A456**

1 - REF. & DESCRIPTION ECHANTILLONS DE TEST | *1 - TEST SAMPLES REF. & DESCRIPTION*

 Zone de découpe *Cut area*	 Zone de découpe *Cut area*
Désignation *Description:*	Désignation *Description:*
light grey M63*1.5 plastic cable gland	grey M63*1.5 plastic cable gland
Nb d'échantillon(s) *Number of test samples:*	Nb d'échantillon(s) *Number of test samples:*
1	1
Etat des échantillons de test *State of the test samples:*	Etat des échantillons de test *State of the test samples :*
Découpe et préparation des échantillons effectuées par SERCOVAM avec : Scie sauteuse - *Cutting and preparation of the samples performed by SERCOVAM with : Jig saw -*	Découpe et préparation des échantillons effectuées par SERCOVAM avec : Scie sauteuse - *Cutting and preparation of the samples performed by SERCOVAM with : Jig saw -*

 Zone de découpe *Cut area*
Désignation *Description:*
black M63*1.5 plastic cable gland
Nb d'échantillon(s) *Number of test samples:*
1
Etat des échantillons de test *State of the test samples:*
Découpe et préparation des échantillons effectuées par SERCOVAM avec : Scie sauteuse - *Cutting and preparation of the samples performed by SERCOVAM with : Jig saw -*

2 - CONDITIONS D'ESSAI

Méthode d'essai : Conditions client

Extrait du cahier des charges fourni par le client : UL514B §8.26.7

Appareil utilisé : CI35 (ATLAS).

Conditions d'essais :

- Température de consigne au thermomètre (BST) : 65 ± 3° C (période sans arrosage),
- Température de consigne au bulbe sec (chambre) : 38 ± 3°C,
- Description des cycles :
  - 18 min aspersion,
  - 102 min séchage,
- Eclairement énergétique réglé à 0.35 W/m² pour une longueur d'onde de 340 nm,

Durée programmée de l'essai : 1000 heures.

Cotation échelle des gris : EN 20105-A02 (12/94).
Conditions d'éclairage, cabine à lumière GAMAIN fond noir.

2 – TEST CONDITIONS

Test method: Customer's requirement

Extract from specifications provided by customer: UL514B §8.26.7

Equipment: CI35 (ATLAS).

Test conditions:

- *Reference temperature at the thermometer (BST): 65 ± 3° C (period without spraying),*
- *Reference temperature at dry bulb (chamber): 38 ± 3°C,*
- *Cycles description:*
  - *18 min spraying,*
  - *102 min drying,*
- *Irradiance set to 0.35 W/m² for a 340 nm wavelength,*

Programmed duration of test: 1000 hours.

Grey scale grading: EN 20105-A02 (1994/12).
Lighting conditions, GAMAIN Light booth with black background.

3 - DISPOSITIFS D'ESSAIS MIS EN ŒUVRE | *3 - TEST & ANALYSIS EQUIPMENT*

Désignation *Description*	**Réf. SERCOVAM** *SERCOVAM Ref.*	**Date de la validité de la vérification** *Validity date of the verification*	**N° de certificat** *Certificate nr*
CI 35 *CI 35*	1100 3275	12/2012	CV UV 11/3275
Cabine à lumière FM 6500 *FM 6500 lightbooth*	1100 0668	09/2012	CL11_0668

4 – DEROULEMENT & RESULTATS | *4 – TEST SEQUENCE & RESULTS*

Date de démarrage de l'essai : 01/06/2012 | *Test start date: 2012/06/01*

Référence *Reference*	**Observations** *Observations*	**Rappel des exigences client (1)** *Reminder of the customer's requirement (1)*	**Conformité (2) aux exigences client** *Conformity (2) following the customer's requirements*
light grey M63*1.5 plastic cable gland	Indice échelle des gris : 3/4 Eclaircissement de la teinte. Pas de fissure ni de microcraquelure. *Grey scale index : 3/4* *Lightening of the colour* *Np crack, no microcracking.*	Aucune fissure, ni microcraquelure. *No crack, no microcracking.*	Conforme *In conformity*
grey M63*1.5 plastic cable gland	Indice échelle des gris : 2 Eclaircissement de la teinte Toucher rugueux Pas de fissure ni de microcraquelure. *Grey scale index :2* *Lightening of the colour* *Rough touch* *No crack, no microcracking.*	Aucune fissure, ni microcraquelure. *No crack, no microcracking.*	Conforme *In conformity*
black M63*1.5 plastic cable gland	Indice échelle des gris : 3/4 Eclaircissement de la teinte Pas de fissure ni de microcraquelure. *Grey scale index : 3/4* *Lightening of the colour* *No crack, no microcracking.*	Aucune fissure, ni microcraquelure. *No crack, no microcracking.*	Conforme *In conformity*

(1) Cahier des charges : UL514B §8.26.7
(2) Pour déclarer, ou non, la conformité à la spécification, il n'a pas été tenu explicitement compte de l'incertitude associée au résultat.

(1) Specifications: UL514B §8.26.7
(2) To pronounce or not on the conformity to the specification, we do not take into account the result uncertainty.

UV photo-ageing

Our ultraviolet ageing laboratory is equipped to meet substantial demand, being equipped with no less then 30 machines enabling the application of the numerous constructor standards or testing methods : CI 3000, CI 35, XENOTEST 150S, XENOTEST 1200, CXW, CDMC, XENOTEST 450, UV-CON, XR35, CLIMATRON, DELSOL … Laboratory accredited by the COFRAC and recognised by the major car companies.

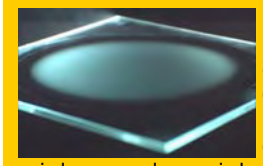
Appearance tests

In the field of laboratory testing there is a multitude of devices and test methods that estimate and characterise the durability of the appearance of parts or materials: abrasion, car-wash brushes, impacts, rubbing, chipping, grit-blasting, cross-cutting, scratching, marking, staining, etc. are all wear phenomena that products may have to resist, depending on their intended use.
These tests are applicable to the broadest range of materials: plastics, rubbers, paints, varnishes, metals, textiles, leathers, glass, wood, foams, etc.

Olfactory & Tactile Sensory Analysis

SERCOVAM has a Sensory Analysis laboratory equipped with an air-conditioned evaluation room made up of eight separate measurement cubicles (photo) and one independent preparation room. The sensory analysis is performed by five subjects trained and qualified. The studies cover two fields: evaluation of fragrant intensity and identification of the nature of the odour. The evaluation can be done on materials or parts, in small bottles or bags. SERCOVAM has set up a panel of eight experts with a special feel for their work who are trained in producing tactile profiles.

Fogging



SERCOVAM has several fogging benches that can characterise the phenomenon whereby volatile products given off by passenger cell materials condense on windows, and particularly on the windscreen and rear window. SERCOVAM can quickly produce sets of results for customers that are characterised by measurement such as the brightness, gravimetric analysis, light transmission and haze. This testing complies with the international standards and the test methods specified by the main car manufacturers. The laboratory is accredited by the COFRAC and RENAULT.

Volatile Organic Compounds (VOC) Chemical Analysis

The analytical chain of characterization of the volatile compounds is made up of a thermo emission injector or a headspace coupled with a gas chromatograph and with a mass spectrometer or a FID detector. The approach is both quantitative and qualitative and allows the analysis of the total VOC and the volatile compounds identification. Other volatile compounds measurements can be carried out, in particular formaldehyde emission measurement and volatile research amine type.

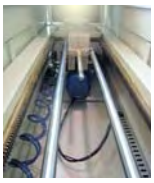
Pressure Tests

These tests make it possible to determine the resistance of any part carrying liquids or air in vehicles. The fluid may be circulated hot or cold, and certain tests can even combine stress, by adding vibration, for example. This gives a genuine vehicle configuration, thus ensuring the representativeness of the test itself.

Vibration Testing

SERCOVAM is equipped with several vibration appliances : two 26 kN vibrators with table, one 13 kN vibrator with table, one 13 kN vibrator fitted with a climatic chamber enabling performances from –40°C to +150°C, two 10 kN vibrators fitted with climatic chambers enabling performances from –40°C to +150°C, two shock machines, one shaking machine. The vibration machines are fitted with devices capable of generating climatic environments thus enabling the combination of vibratory, thermal and hydraulic stresses (cycled pressure) coming in many cases close to actual conditions of use. Certain tests can even combine up to five different forms of stress.

Mechanical Tests



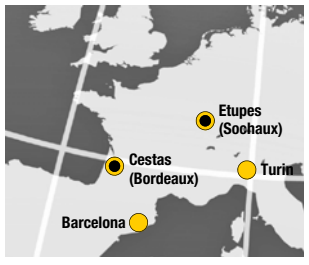
The mechanical tests laboratory is equipped for testing tensile strength, compression, elongation and fatigue, thus meeting the majority of the standards in force of those fields. SERCOVAM is also equipped with a falling weight impact tester. The instrumented impact test allows to determine the breaking energy and the behaviour to shocks by puncture of materials under test. Tests are mainly performed according to ISO 6603-2 or ISO 7765-2, at cold or hot temperature (from -70 to + 150 °C).

Exposure to Sunlight

Three cabins from 14 to 84 m3 allow to test the resistance to solar light without UV of vehicle parts. This test simulates the degradation experienced by a vehicle exposed to sunlight for long periods. The tests are accredited by RENAULT.

Corrosion and Climatics

Corrosion tests, by creating an artificial and controlled corrosive atmosphere, allow testing the resistances of materials and protection layers, but also the toughness of mechanical or electrical parts. The numerous devices of the Corrosion Lab can provide tests following the major test methods and norms: Salt Spray Mist, RENAULT ECC1, PSA TCAC, 3C, CCT-1, SWAAT Test, H2S/SO2/NO2/Cl2… A large number of climatic chambers enable climatic cycles to be run using heat, cold and humidity. These facilities also include RTV chambers (Rapid Temperature Variation) and air-air or liquid-liquid thermal shocks.



SERCOVAM - Cestas plant
BP 10 - Z.I. Marticot - 33611 CESTAS
Tel: +33.5.57.97.02.33
Fax: +33.5.57.83.53.73
e-mail : contact@sercovam.com

www.sercovam.com/en
ONLINE TESTS
Browse our database and get a quotation in a very short time

SERCOVAM S.A.S. au capital de 407 085 € RC Bordeaux B 341 929 925 N° TVA CEE FR 43 341 929 925 N° SIRET : 341 929 925 000 20