

## TEST REPORT No. 357420

**Place and date of issue:** Bellaria-Igea Marina - Italia, 18/12/2018

**Customer:** IDECO ARIGIRIS PAPAPOPOULOS INDUSTRIAL S.A. - Egnatia Odos Veria-Thessaloniki km 10,000 - Veria, IMATHIA - Greece

**Date testing requested:** 09/10/2018

**Order number and date:** 78085, 09/10/2018

**Date sample received:** 09/03/2018

**Date of testing:** 05/12/2018

**Purpose of testing:** testing the wind resistance of an insect screen with guiderail with fabric running into the lateral rails and without tension system according to clause 7.4 of standard UNI EN 1932:2013 with test parameters and results evaluation according to standard UNI EN 13561:2015

**Place of testing:** Istituto Giordano S.p.A. - Strada Erbosa Uno, 72 - 47043 Gatteo (FC) - Italia

**Origin of sample:** sampled and supplied by the Customer

**Identification of sample received:** No. 2018/0517

### Name of sample\*

The test sample is named "ROYAL-160-ONE LEAF LATERAL (1400x2200)".

(\*) according to that stated by the Customer.

Comp. MB  
Revis. CB

This test report consists of 6 sheets and 1 annex.

Sheet  
1 of 6

### **Description of sample\***

The sample under test consists of an insect screen with guiderail with fabric running into the lateral rails and without tension system, nominal size 1400 mm × 2200 mm.

The sample in details is composed by:

- curtain, stated openness coefficient “Co” 65 %;
- steel stainless two chambers sliding rail.

Further details of sample specifications can be seen in Customer-supplied technical documentation shown in annex “A” to this test report.



**Photograph of the sample.**




Detail of the label.

### **Normative references**

Testing was carried out according to the following standards:

- UNI EN 13561:2015 dated 09/07/2015 “Tende esterne e tendoni - Requisiti prestazionali compresa la sicurezza” (“External blinds and awnings - Performance requirements including safety”);
- UNI EN 1932:2013 del 18/07/2013 “Tende e chiusure oscuranti esterne - Resistenza al carico del vento - Metodo di prova e criteri di prestazione” (“External blinds and shutters – Resistance to wind loads – Method of testing and performance criteria”).

### **Test apparatus**

Testing was carried out using the following equipment:

- measure and control computerized semiautomatic system with differential pressure transducers;
- Mitutoyo Corporation digital meter model “TD-S551D1 216-452”, full scale 5500 mm (in-house apparatus code: FT364).

### Test methods

The test was performed in accordance with clause 7.3 “Awnings with lateral guiderail without fabric running into the lateral rails and without tension system” of standard UNI EN 1932:2013 and with clause 4.1 “Resistance to wind loads” of standard UNI EN 13561:2015.

The test loads for the reference class in clause 4.1 of standard UNI EN 13561:2015.

The sample was tested to determine the wind load resistance using method 3:

- applying a direct nominal pressure “ $p_s$ ”, for at least 2 min, defined as

$$p_s = p_{N-Co>20\%} \cdot \gamma$$

where:  $p_N$  = threshold value of nominal test pressure, in  $N/m^2$ , corresponding to the class considered in accordance with table 1 of standard UNI EN 13561:2015;

$C_o$  = openness coefficient of the fabric;

$\gamma$  = 1,2 (coefficient of transition from the nominal loads to the safety loads);

- releasing and inspecting;
- applying reverse safety pressure “ $-p_N$ ”, for at least 2 min, releasing and inspecting.

The drop test was not performed since it was not feasible because of the conformation of the sample.

### Environmental conditions at the time of testing

|                   |             |
|-------------------|-------------|
| Room temperature  | (19 ± 1) °C |
| Relative humidity | (56 ± 5) %  |

### Test results

|              |         |
|--------------|---------|
| Load method* | 3       |
| Width “L”    | 1,400 m |
| Height “H”   | 2,200 m |

(\*) according to clause 5 of standard UNI EN 1932:2013.

**Wind load resistance test.**

| Applied load<br>[Pa] | Side* | Result**  |
|----------------------|-------|-----------|
| 113                  | outer | complying |

(\*) The sample has been tested only on one side because it is statically symmetrical.

(\*\*) According to clause 7.4.6 "Performance criteria" of standard UNI EN 1932:2013 there shall be no:

- tearing in fabric;
- breakage (stitching, guiding pins..);
- permanent deformations (profiles, rails, roller tube..);
- exit from guide rails.



**Photograph of the sample during test.**

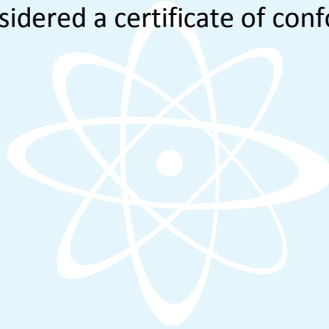
### **Findings**

On the basis of the test performed, on the basis of the results obtained and based on standards UNI EN 13561:2015 and UNI EN 1932:2013, the test sample, comprising an insect screen with guiderail with fabric running into the lateral rails and without tension system, called "ROYAL-160-ONE LEAF LATERAL (1400x2200)" and submitted by the company IDECO ARIGIRIS PAPADOPOULOS INDUSTRIAL S.A. - Egnatia Odos Veria-Thessaloniki km 10,000 - Veria, IMATHIA - Greece, results to belong, according to clause 4.1 of standard UNI EN 13561:2015, to the performance class specified in the following table.

| Test type            | Test reference   | Class reference   | Class |
|----------------------|------------------|-------------------|-------|
| wind load resistance | UNI EN 1932:2013 | UNI EN 13561:2015 | 5     |

The results given refer exclusively to the test sample itself and are only valid under the same conditions in which testing was carried out.

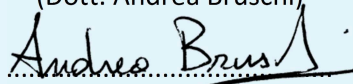
This test report alone shall not be considered a certificate of conformity.



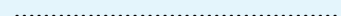
Test Technician  
(Dott. Ing. Paolo Bertini)



Head of  
Security and Safety Laboratory  
(Dott. Andrea Bruschi)



Chief Executive Officer



**ANNEX "A"**  
**TO TEST REPORT No. 357420**

**Luogo e data di emissione:** Bellaria-Igea Marina - Italia, 18/12/2018

**Committente:** IDECO ARIGIRIS PAPADOPOULOS INDUSTRIAL S.A. - Egnatia Odos Veria-Thessaloniki  
km 10,000 - Veria, IMATHIA - Greece

**Object:** Sample technical documentation

Customer-supplied schematic drawing related to the sample is shown in the following sheet.



