

## TEST REPORT No. 325466

**Place and date of issue:** Bellaria-Igea Marina - Italy, 22/06/2015

**Customer:** INGROSERVICE ITALIA S.r.l. - Via del Pantano, 71 - 50018 SCANDICCI (FI) - Italy

**Date test requested:** 20/05/2015

**Order number and date:** 66613, 20/05/2015

**Date sample received:** 22/05/2015

**Test date:** from 26/05/2015 to 12/06/2015

**Purpose of test:** determination of water-vapour permeability in accordance with standard UNI EN ISO 7783:2012 and resistance to humidity in a temperature and humidity chamber in accordance with standard UNI EN ISO 6270-2:2005

**Test site:** Istituto Giordano S.p.A. - Blocco 4 - Via San Mauro, 8 - 47814 Bellaria-Igea Marina (RN) - Italy

**Sample origin:** sampled and supplied by the Customer

**Identification of sample received:** No. 2015/1074

### Sample name\*

The test sample is called "ARTEVIVA".

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

Comp. AV  
Revis. OF

This test report consists of 3 sheets.  
This document is the English translation of the test report No. 325466 dated 22/06/2015 issued in Italian; in case of dispute the only valid version is the Italian one. Date of translation: 31/07/2015.

Sheet  
1 of 3

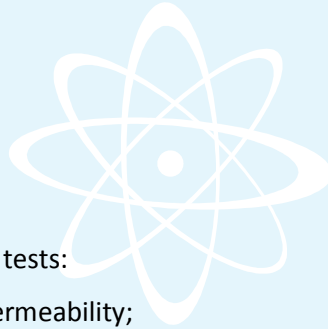
**Description of sample\***

The test sample is an acrylic-resin-based applied product filled with quartz aggregate of various particle size.

**Normative References**

The test was carried out in accordance with the requirements of the following standards:

- UNI EN ISO 7783:2012 dated 09/02/2012 “Paints and varnishes - Determination of water vapour transmission properties - Cup method”;
- UNI EN ISO 6270-2:2005 dated 06/10/2005 “Paints and varnishes - Determination of resistance to humidity - Part 2: Procedure for exposing test specimens in condensation-water atmospheres”.

**Test method**

The sample underwent the following tests:

- determination of water-vapour permeability;
- determination of the resistance to humidity in a temperature and humidity chamber under the following conditions:

the specimen is placed inside the temperature/humidity cabinet maintained at a temperature of  $(38 \pm 1) ^\circ\text{C}$  with 100% relative humidity for a total of 240 h.

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

## Test results

### Determination of water-vapour permeability

Sample	ARTEVIVA
Test method	Method 2 - Wet cup method
Atmospheric pressure	$1,013 \cdot 10^5$ Pa
Temperature	23 °C
Relative humidity in the cup	100 %
Relative humidity outside the cup	0 %
Effective diameter of exposed area (ring template) "D"	80 mm
Average thickness of specimens	1,3 mm
Vapour flow "G"	$0,62 \cdot 10^{-5}$ kg/h
Density of water vapour flow rate "g"	$1,23 \cdot 10^{-3}$ kg/m <sup>2</sup> ·h
Density of flow rate over 24 hours "g 24"	0,030 kg/m <sup>2</sup> · 24h
Permeance "W"	$4,44 \cdot 10^{-7}$ kg/m <sup>2</sup> ·h·Pa
Water-vapour permeability "δ"	$5,78 \cdot 10^{-10}$ kg/m·h·Pa
Water-vapour permeability of motionless air "δ <sub>a</sub> "	$7,04 \cdot 10^{-7}$ kg/m·h·Pa
Diffusion resistance factor "μ"	1218
Equivalent air layer "S <sub>d</sub> " (thickness 1300 μm)	1,584 m

### Determination of the resistance to humidity in a temperature and humidity chamber

Sample	Result after 240 h in a temperature and humidity chamber
ARTEVIVA	Sample applied to a suitable substrate appears fully INTACT

Test Technician:  
Dott. Oscar Filippini

Head of Chemical Laboratory:  
Dott. Oscar Filippini

Chief Executive Officer  
(Dott. Arch. Sara Lorenza Giordano)

