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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.

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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 ± 1) °C with 100% relative humidity for a total of 240 h.

(*) according to that stated by the Customer.

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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^2·h
Density of flow rate over 24 hours “g 24”	0,030 kg/m^2 · 24h
Permeance “W”	$4{,}44 \cdot 10^{-7}$ kg/m^2·h·Pa
Water-vapour permeability “δ”	$5{,}78 \cdot 10^{-10}$ kg/m·h·Pa
Water-vapour permeability of motionless air “δ_a”	$7{,}04 \cdot 10^{-7}$ kg/m·h·Pa
Diffusion resistance factor “μ”	1218
Equivalent air layer “S_d” (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)