

## TECHNICAL REPORT

### ANTI-CONDENSATION CAPACITY OF PAINT

#### GENERAL DATA

**Type of paints:** acrylic based paint

**Products:** Sample 1 (Commercial sample other competitor), Sample 2(Bisaten Thermal Paint)

**Customer:** Giuseppe Di Maria S.p.A.

**Date:** 05/29/2019

**Technician:** Ing. Vincenzo Contaldi, Ing. Antonio Chiechi

**Contact:** vincenzo.contaldi@salentec.com, tel. 0039 0832 351142

**Code:** Sample 1 (Commercial sample other competitor), Sample 2(Bisaten Thermal Paint)

**Id. Number report:** N.15909 DI MARIA

#### DESCRIPTION OF THE MEASUREMENT METHOD

**Method:** Nordtest method NT Poly 170

**Instrument:** Climatic chamber *Controls mod. 10-D1428/A* with temperature and humidity control.

Cylindrical SS support with a conical bottom cooled internally with a mass of ice has been used for water condensation on paints.

**Test conditions:** 23 °C, 50% RH in the chamber, 0 °C on the sample holders

**N ° of samples tested:** four / sample paint to analyze

**Dilution:** As supplied by customer

**Average amount of applied paint:** Sample A = 284,8 g/m<sup>2</sup>; Sample B = 292,2 g/m<sup>2</sup>

**Average amount of dry paint applied:** Sample A = 170,9 g/m<sup>2</sup>; Sample B = 143,1 g/m<sup>2</sup>

#### Measured parameters:

- Water retention per unit of surface = amount of water retained on the measuring cone in stationary condensation conditions expressed in g/m<sup>2</sup>
- WPAC = percentage measurement of the amount of water retained referred to the amount of applied wet paint

**"COMMERCIAL PAINT" RESULTS**

	Mean value	St. dev.	St. dev. % (<5%)
<b>WS</b> <b>(Water retention per unit of area)</b>	67,4 g/m <sup>2</sup>	2,5 g/m <sup>2</sup>	3,7 %
<b>WPAC</b> <b>(Percentage water absorption capacity)</b>	23,7%	0,5%	2,2%

**" COMMERCIAL PAINT " EVALUATION INDEX**

**+ effective**

**A**

**B**

**C**

**- effective**

Water retention per unit of area  
67,4 g/m<sup>2</sup>

**"Bisaten Thermal Paint" RESULTS**

	Mean value	St. dev.	St. dev. % (<5%)
<b>WS</b> <b>(Water retention per unit of area)</b>	72,6 g/m <sup>2</sup>	1,8 g/m <sup>2</sup>	1,7 %
<b>WPAC</b> <b>(Percentage water absorption capacity)</b>	24,8 %	0,4 %	1,7 %

**" Bisaten Thermal Paint " EVALUATION INDEX**

**+ effective**



**B**

**C**

**- effective**

Water retention per unit of area  
72,6 g/m<sup>2</sup>

**NOTE**

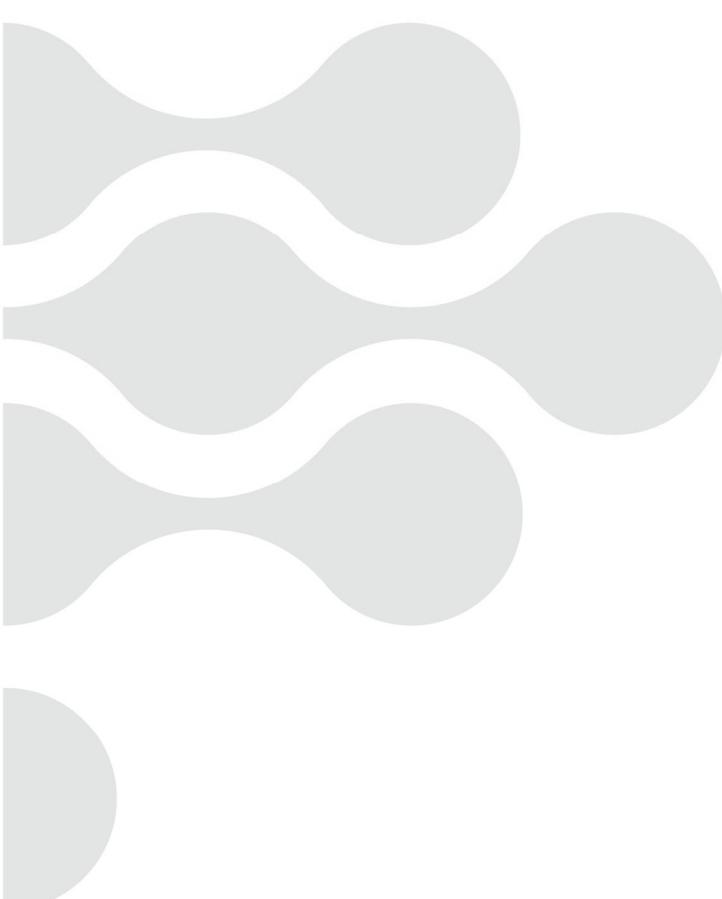
The test assesses the ability of a coating to superficially retain water that condenses on the walls or ceiling during cooling periods, typically during the night. During the day and during the periods of the material heating, the release of the water retained by evaporation takes place almost completely. On the contrary, if the water is not retained, it begins to drip and accumulate in some areas, making re-evaporation more difficult.

Based on the data collected by testing a wide range of commercial acrylic paints available on the market, Salentec has developed an evaluation scale articulated in 3 degrees of effectiveness of the anti-condensation capacity based on the quantity of water retained per unit area:

A → >70 g/m<sup>2</sup>

B → >42 g/m<sup>2</sup> e <70 g/m<sup>2</sup>

C → <42 g/m<sup>2</sup>



*Vincenzo Contaldi*

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