



*Color has a Name!*

# bee Paint

**Beehive paint**



**Tested  
from the  
Apiculture  
Lab. of A.U.A.**





# bee

Paint

**Bee Paint** is high quality water-based acrylic enamel, based on self-cross linking resins with excellent performance and great resistance.

The product is an **excellent choice** for painting new beehives and for the maintenance of already painted ones.

According to the study results the product was **tested** under real conditions **from the Agricultural University** and showed outstanding results since there was no negative impact on adult worker bees, the brood or the queen.

The lack of direct and indirect toxicity makes it a **great choice** for that use.

It outclasses traditional beehive coating systems because of the ease of application, the reduced time of work completion, the reduced total labor costs and better environmental performance.



**BERLING**Paints



## Product Characteristics

- Tested by the Apiculture Department of Agricultural University of Athens.
- Lack of toxicity for the population of bees.
- High adhesion.
- High resistance to humidity.
- Based on hydrophobic resins.
- High resistance to weather conditions.
- High penetration in wooden surfaces.
- The use of a special primer is not required.
- Easy and speed of application and maintenance.
- Water-based with reduced VOC emissions.
- Does not create paint film, so it is not peeled off.

### Shades

Available in white and three shades yellow, green and blue, based on the instructions of the Agricultural University of Athens about the shades that bee can discern.

### Coverage

**16 - 18 m<sup>2</sup>/lt per coat.**

The coverage may deviate depending on the painting method and surface absorptivity.

**The coverage for finished new surface is 5 - 6 m<sup>2</sup>/lt (2 coats are required. If a primer is needed then Bee paint is applied in one additional coat.)**



# Test Results by the Apiculture Department of the Agricultural University

## Experimental procedure

Special “cages” for bees were built from cell manufacturing wood of scale 20x20x20cm with strainer and plastic diaphragm for better control and removal of losses.

Bees fed with a mixture of honey and powdered sugar, sugar syrup 1:1 and pollen substitute.

In each experimental cage were mixed bees from various frames of brood and honey in order to exist bees of all ages. Then in each cage were placed about 40 g of bees (350-400 bees) by volumetric dosing.

There were three groups A, B and C, and 4 replicates for each group so as to allow statistical processing of results.

**Group A**  
Unpainted.

**Group B**  
Exterior paint  
according to  
instructions.

**Group C**  
Interior paint.

Placement of the bees took place on 18/04/2016 and stayed for 10 days until 28/04/2016.

Losses were counted daily and were removed from the cages. The cages were placed in a room with controlled conditions with 28°C temperature and relative humidity of 65%, almost the same conditions as those of the beehives.



More information  
of the product.



## Results

Bee losses were observed after the 5th day according to the Table.

Number of bees recorded during 10 days in cages categories												
DAY	A1	A2	A3	A4	B1	B2	B3	B4	C1	C2	C3	C4
1	1	0	2	0	1	0	0	1	0	0	1	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	1	0	0	0	0	0	0	0	1	0	0	0
4	2	2	1	1	1	1	2	1	0	1	0	2
5	0	0	0	2	3	0	0	0	1	0	0	0
6	0	3	4	6	0	4	2	3	2	3	3	4
7	5	4	4	3	4	5	3	2	3	4	1	2
8	5	3	4	3	4	4	3	3	3	4	3	4
9	1	1	3	3	2	1	2	3	1	1	2	1
10	4	5	5	1	2	3	4	5	4	4	6	6
<b>TOTAL</b>	<b>19</b>	<b>18</b>	<b>23</b>	<b>19</b>	<b>17</b>	<b>18</b>	<b>16</b>	<b>18</b>	<b>15</b>	<b>17</b>	<b>16</b>	<b>19</b>
	79				69				67			

## Conclusions

*From all the above there seems no immediate toxicity (group C) or indirect toxicity (group B) to bees because of the paint since at group A there were more losses.*

*The death of bees is due to natural mortality because of the conditions and stress from their stay in the cages.*



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