



BIOGRÜNDL, S.L.  
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-  
08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)  
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## TECHNICAL DATA SHEET

### **BIOGRÜNDL ANTIOX** **/ AEC / HGL / CA20 /**



**Trade Name:** BIOGRÜNDL ANTIOX / AEC / HGL / CA20 /.

**Product Code:** CEBXAHGLC20.

**INCI Name:** AQUA, GLYCERIN, CAMELLIA SINENSIS LEAF EXTRACT, GINKGO BILOBA LEAF EXTRACT, GLYCINE SOJA GERM EXTRACT, POTASSIUM SORBATE, SODIUM BENZOATE.

**INCI Status:** Conforms.

**REACH Status:** Low Volume Exemption.

**CAS Number:** 7732-18-5; 56-81-5; 84650-60-2; 90045-36-6; 84776-91-0; 24634-61-5/ 590-00-1; 532-32-1.

**EC Number:** 231-791-2; 200-289-5; 283-519-7; 289-896-4; 921-078-0; 246-376-1; 208-534-8.

**Origin: GLYCERIN, GLYCINE SOJA GERM EXTRACT:** Vegetable origin.

**CAMELLIA SINENSIS LEAF EXTRACT, GINKGO BILOBA LEAF EXTRACT:** Vegetable origin.



**POTASSIUM SORBATE:** Synthetic origin.

**SODIUM BENZOATE:** Synthetic origin.

**Processing:** GMO Free. / No Ethoxylation. / No Irradiation. / No Sulphonation. / No BSE/TSE. / No CMR. / No SVHC. / No Nanomaterial. / No DEG. / No DEHP. / No Formaldehyde. / No Phthalates. /

**Additives:** Preservatives: Potassium Sorbate, Sodium Benzoate. Paraben Free. / Antioxidants: None. / Other additives: None.

**Solvents Used:** Water and glycerin.

**Appearance:** Clear or slightly opalescent liquid.

**Colour:** Characteristic (yellowish to deep brown).

**Odour:** Characteristic.

**Specific gravity:** 1,050 - 1,300 g/cm<sup>3</sup> (20°C approx.).

**Direct pH value:** 4,5 – 6,5 (20°C approx.).

**Soluble/ Miscible:** Water. Surfactants. Hydroalcoholic, hydroglyceric and hydroglycolic mixtures.

**Ecological Information:** Sustainable.

**Microbial Count: Total aerobics:** Max. 300 microorganisms / gram.

**Fungi and yeasts:** Max. 200 microorganisms / gram.

**Pathogens:** Total absence in 1 gram.

**Suggested Use Levels:** 2,0 – 10,0%.

**Suggested Applications:** Phytocosmetic products. Anti-oxidant, protective, skin tissue microcirculation stimulant, sunscreen and anti-wrinkle preparations.

**Properties:** Anti-oxidant, protective, skin tissue microcirculation stimulant, sunscreen and anti-wrinkle.

**Industrial packing:** 1Kg., 5Kg., 25Kg., 225Kg.

**Storage conditions:** It is very important to keep the product in well closed containers, away from direct sunlight at temperatures not over 15°C. In case of not having refrigerators, store the product in the coolest and free from artificial light area.

**Bibliography:** - Atlas Ilustrado de Plantas Medicinales y Curativas, Ed. Susaeta.

- Dumont's grosse Kräuter Enzyklopädie.

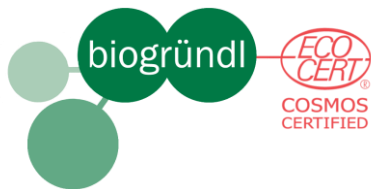
- Fitocosméticos ALVAREZ CRUZ i BAGUE SERRANO.

- Gran enciclopedia de las plantas medicinales, BERDONCES i SERRA.

- Plantas medicinales, FONT i QUER.

- Proserpio G., Martelli A., Patri GF.; Elementi di Fitocosmeci; Ed. Sepem / Milano 1983.

- Websites.



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### OVERVIEW

BIOGRÜNDL ANTIOX by BIOGRÜNDL. S.L., contains three active components:

- Green tea extract, obtained from *Camellia sinensis* leaves, plant belonging to the Theaceae family. Green tea is very rich in teine, puric base very similar to caffeine from coffee or theobromine from cocoa. Also, contains tannins, polyphenols (caffeic and chlorogenic acids), vitamins (C, B, PP, carotene), bioflavonoids and trace elements (fluorine and zinc).
- Ginkgo biloba extract, obtained from leaves, is a tree belonging to the Ginkgoaceae family, containing flavonoids (free flavonoids, flavonoid heterosides, bioflavonoids), and terpenic lactones (ginkgolides).
- Soya extract (*Glycine soja*) which is an annual plant belonging to the Legume family, upright stem with trimer leaves, white or violet flowers, its fruit is a pod that contains seeds or beans.

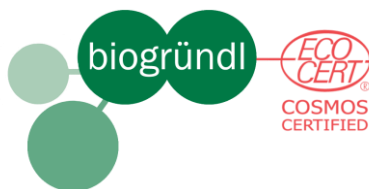
### USE AND DOSAGE

The incorporation of BIOGRÜNDL ANTIOX by BIOGRÜNDL, S.L. is justified by its anti-oxidant, protective, skin tissue microcirculation stimulant, sunscreen and anti-wrinkle properties.

As its name indicates, BIOGRÜNDL ANTIOX by BIOGRÜNDL, S.L. only contains active materials from vegetable origin, so its preferred use is in phytocosmetic products. Very useful is its inclusion in preparations with antioxidant, protective, skin tissue microcirculation stimulant, sunscreen and anti-wrinkle properties.

If turbidity is observed, it is advisable to previously dissolve the product in a portion of the water provided to manufacture the final product and filter after 12-24 hours.

The recommended concentrations of use are between 2% and 10%. For very special effects the dosage can raise up to 15%.



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### PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** Clear or slightly opalescent liquid.

**Colour:** Characteristic (yellowish to deep brown).

**Odour:** Characteristic.

**Direct pH value:** 4,5 – 6,5 (20°C approx.).

**Specific gravity:** 1,050 - 1,300 g/cm<sup>3</sup> (20°C approx.).

**Solubility in water:** Fully soluble (20°C approx.).

**Solubility in other solvents:** Insoluble in organic solvents and lipids. Soluble in surfactants, hydroalcoholic, hydroglyceric and hydroglycolic mixtures.

**Heavy metals:** No more than 5 mg/Kg.

**Sulfated ash:** No more than 0,01%.

**Chlorides:** No more than 0,007%.

**Sulfates:** No more than 0,002%.

**Other information:** None.

**Total aerobics:** Max. 300 microorganisms / gram.

**Fungi and yeasts:** Max. 200 microorganisms / gram.

**Pathogens:** Total absence in 1 gram.

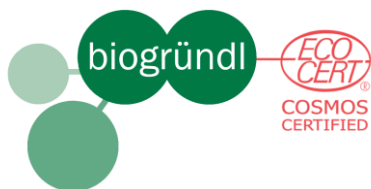
### DERMATOLOGY INNOCUOUSNESS

It was performed by the patch test (Patch test) on 10 volunteers. To this purpose, 15% BIOGRÜNDL ANTIOX by BIOGRÜNDL, S.L., was added to an O/W emulsion; 0,5g. of this emulsion was poured over the patch and attached on the forearm. It is thus maintained for 24, 48 and 72 hours, after which, the given reaction was evaluated, according to the following table of values:

1. No erythema.
2. Slight erythema.
3. Well defined erythema.
4. Severe erythema.

The result was absence of erythema on the 10 volunteers.

On the recommended concentrations, the product is skin innocuous.



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### **STORAGE CONDITIONS**

It is very important to keep the product in well closed containers, away from direct sunlight at temperatures not over 15°C. In case of not having refrigerators, store the product in the coolest and free from artificial light area.

### **INCI DENOMINATION**

AQUA, GLYCERIN, CAMELLIA SINENSIS LEAF EXTRACT, GINKGO BILOBA LEAF EXTRACT, GLYCINE SOJA GERM EXTRACT, POTASSIUM SORBATE, SODIUM BENZOATE.

### **EFFECTIVENESS TESTS**

**Assay:** Double blind spot trial and subsequent cosmetic evaluation.

**Assayed parameters:** Anti-oxidant action. Protective action. Anti-wrinkle action.

**N (volunteers):** 30 (16 ♀ and 14 ♂).

**Age (volunteers):** 21 – 79 years old.

**Left side part to be treated:**

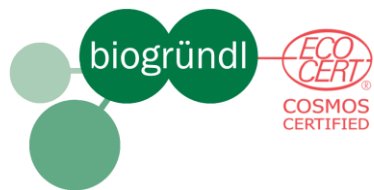
Placebo, 30 volunteers, suitable cosmetic base.

**Right side part to be treated:**

BIOGRÜNDL ANTIOX 2%, 15 volunteers, suitable cosmetic base.

**Right side part to be treated:**

BIOGRÜNDL ANTIOX 5%, 15 volunteers, suitable cosmetic base.



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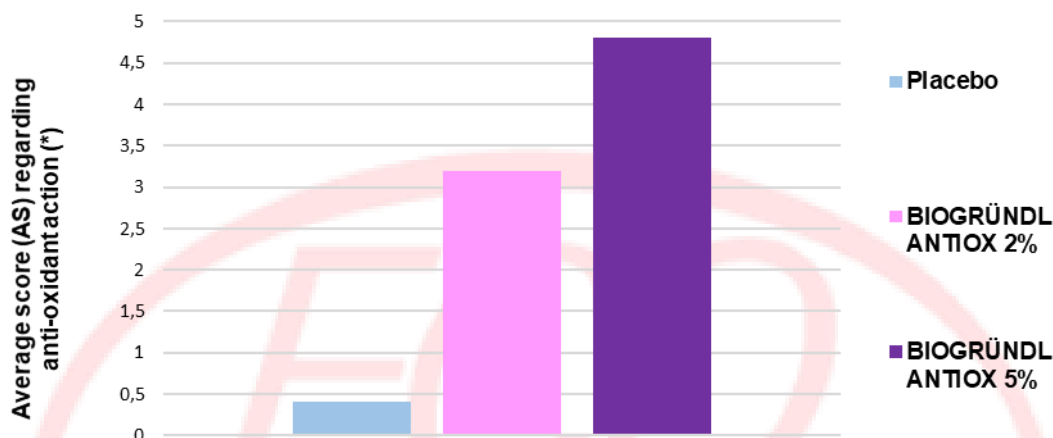
## TECHNICAL DATA SHEET

### Assayed parameters:

	Assay	N (volunteers)	Age (volunteers)	Placebo	BIOGRÜNDL ANTIOX 2%	BIOGRÜNDL ANTIOX 5%	Assay performed (Days)	Results measured (Days)
<b>Anti-oxidant action</b>	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 16 ♀ and 14 ♂	21 – 79	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 30	D' = 1
<b>Protective action</b>	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 16 ♀ and 14 ♂	21 – 79	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 30	D' = 1
<b>Anti-wrinkle action</b>	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 16 ♀ and 14 ♂	30 – 79	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 30	D' = 1

## TECHNICAL DATA SHEET

### SKIN CONDITION EVALUATION AFTER 30 DAYS



(\*) Anti-oxidant action was evaluated by determination of lipid rancidity degree found in volunteers skin sample.

Total number of days in which the assay was performed (treatment was applied):  
 D = 30 days ( every day during the effectiveness test).

Total number of days in which the results were measured:  
 D' = 1 day ( effectiveness test last day).

#### Average score:

**Worst result:** Zero limit value is assigned.

**Best result:** Five limit value is assigned.

Score is assigned to obtained results between the two limit values.

Average computation for each obtained results group is done:

Placebo, 2% BIOGRÜNDL ANTIOX by BIOGRÜNDL, S.L., 5% BIOGRÜNDL ANTIOX by BIOGRÜNDL, S.L..

#### Results meaning:

AS rank between 0 – 1: No significant changes.

AS rank between 1 – 2: Slight improvement regarding placebo.

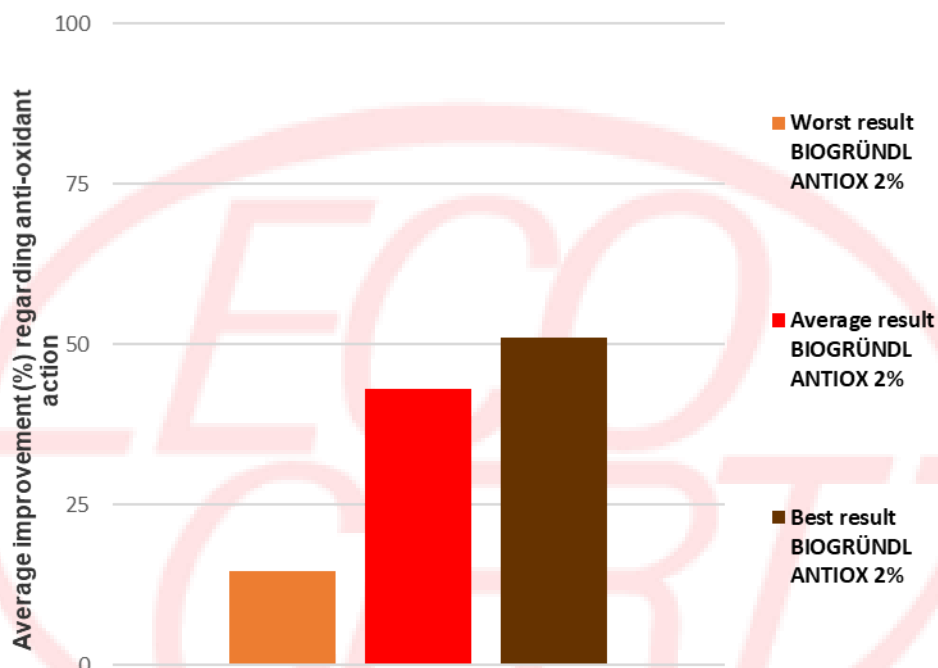
AS rank between 2 – 3: Appreciable improvement regarding placebo.

AS rank between 3 – 4: Great improvement regarding placebo.

AS rank between 4 – 5: Excellent cosmetic result.

## TECHNICAL DATA SHEET

### BIOGRÜNDL ANTIOX 2%



#### Results:

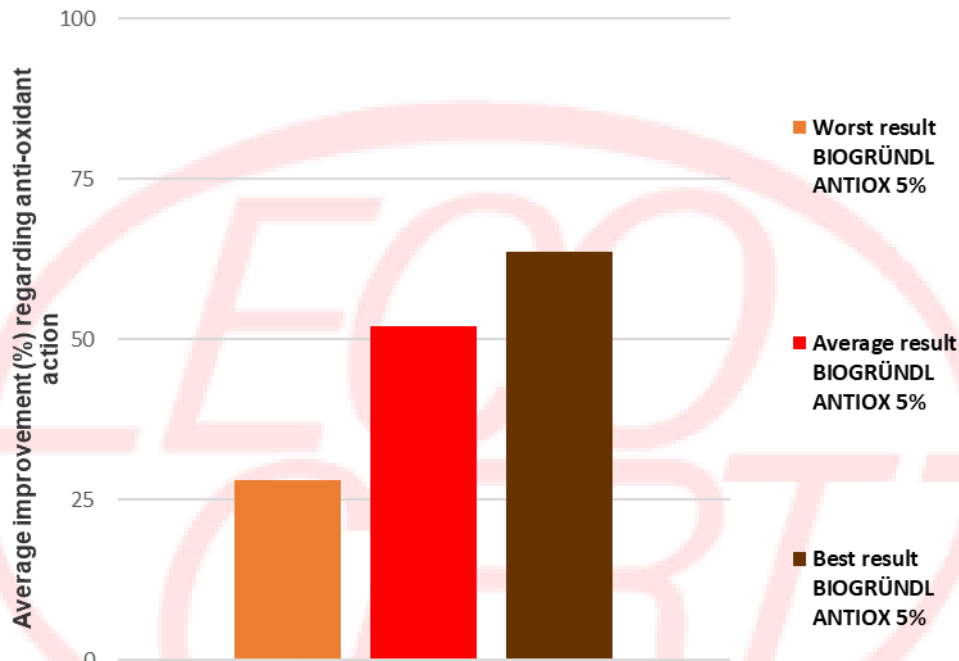
Worst result BIOGRÜNDL ANTIOX 2%: **14,5%**.  
Average result BIOGRÜNDL ANTIOX 2%: **43%**.  
Best result BIOGRÜNDL ANTIOX 2%: **51%**.

#### Results meaning:

AI rank between < 20%: No significant changes.  
AI rank between 21 – 40%: Slight improvement regarding placebo.  
AI rank between 41 – 60%: Appreciable improvement regarding placebo.  
AI rank between 61 – 80%: Great improvement regarding placebo.  
AI rank between > 81%: Excellent cosmetic result.

## TECHNICAL DATA SHEET

### BIOGRÜNDL ANTIOX 5%



#### Results:

Worst result BIOGRÜNDL ANTIOX 5%: **28%**.  
 Average result BIOGRÜNDL ANTIOX 5%: **52%**.  
 Best result BIOGRÜNDL ANTIOX 5%: **63,5%**.

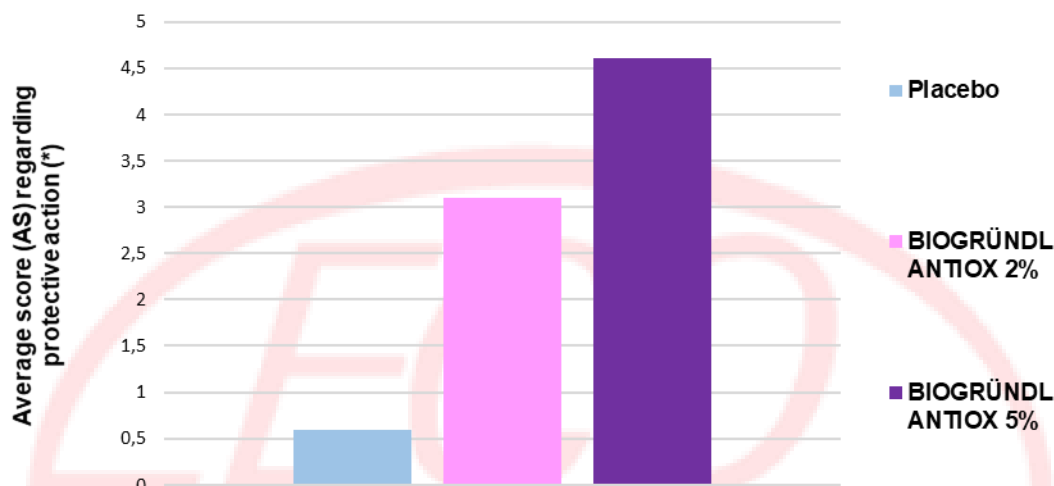
#### Results meaning:

AI rank between < 20%: No significant changes.  
 AI rank between 21 – 40%: Slight improvement regarding placebo.  
 AI rank between 41 – 60%: Appreciable improvement regarding placebo.  
 AI rank between 61 – 80%: Great improvement regarding placebo.  
 AI rank between > 81%: Excellent cosmetic result.



## TECHNICAL DATA SHEET

### SKIN CONDITION EVALUATION AFTER 30 DAYS



(\*) Protective action was evaluated by direct observation of protection to damage produced in skin volunteers (unfavorable environment).

Total number of days in which the assay was performed (treatment was applied):  
 D = 30 days ( every day during the effectiveness test).

Total number of days in which the results were measured:  
 D' = 1 day ( effectiveness test last day).

#### Average score:

**Worst result:** Zero limit value is assigned.

**Best result:** Five limit value is assigned.

Score is assigned to obtained results between the two limit values.

Average computation for each obtained results group is done:

Placebo, 2% BIOGRÜNDL ANTIOX by BIOGRÜNDL, S.L., 5% BIOGRÜNDL ANTIOX by BIOGRÜNDL, S.L..

#### Results meaning:

AS rank between 0 – 1: No significant changes.

AS rank between 1 – 2: Slight improvement regarding placebo.

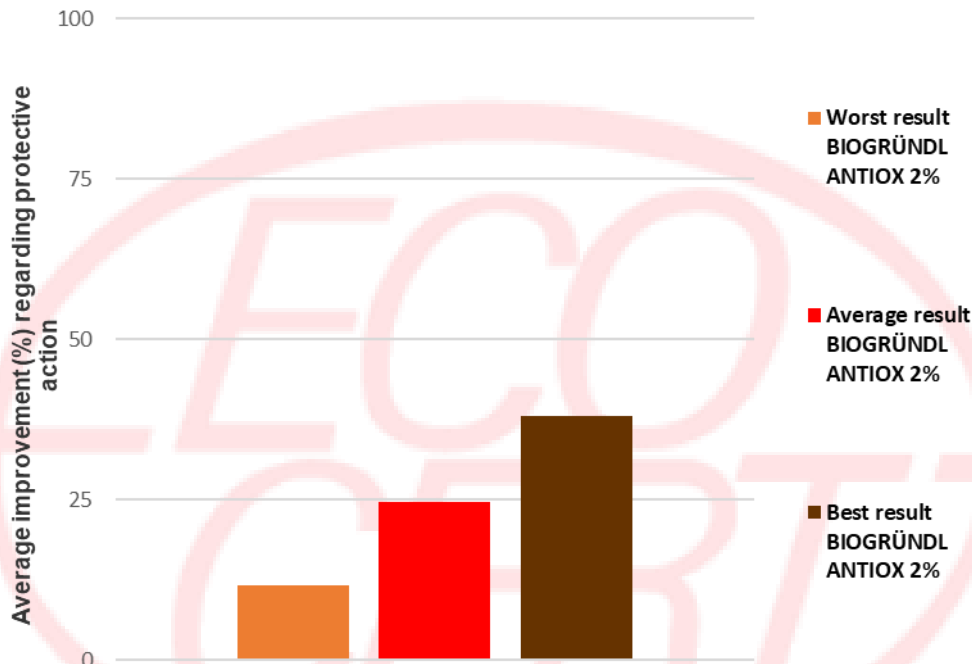
AS rank between 2 – 3: Appreciable improvement regarding placebo.

AS rank between 3 – 4: Great improvement regarding placebo.

AS rank between 4 – 5: Excellent cosmetic result.

## TECHNICAL DATA SHEET

### BIOGRÜNDL ANTIOX 2%



#### Results:

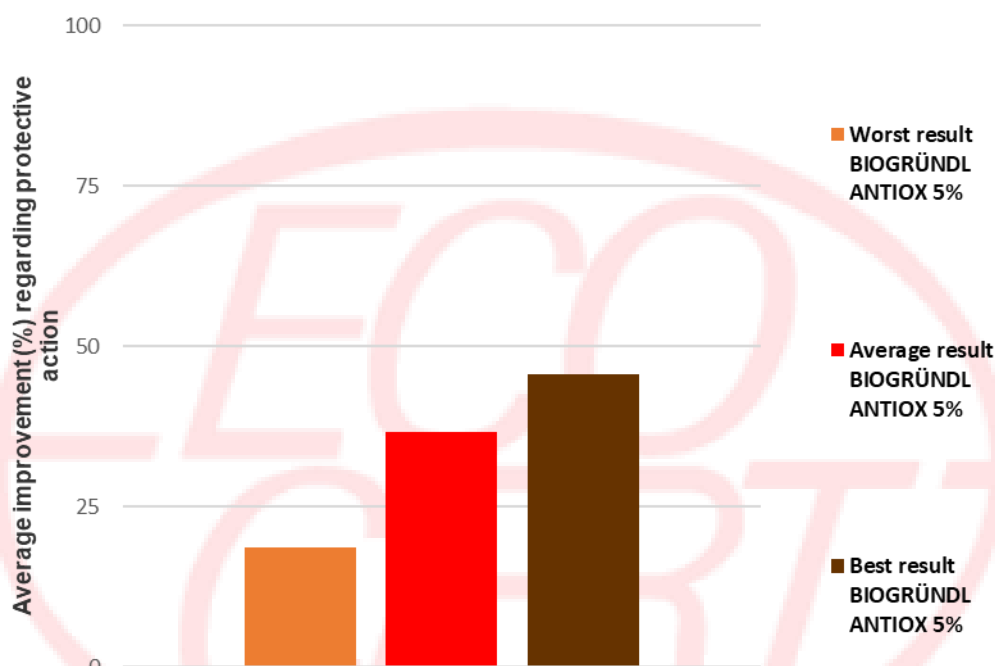
Worst result BIOGRÜNDL ANTIOX 2%: **11,5%**.  
Average result BIOGRÜNDL ANTIOX 2%: **24,5%**.  
Best result BIOGRÜNDL ANTIOX 2%: **38%**.

#### Results meaning:

AI rank between < 20%: No significant changes.  
AI rank between 21 – 40%: Slight improvement regarding placebo.  
AI rank between 41 – 60%: Appreciable improvement regarding placebo.  
AI rank between 61 – 80%: Great improvement regarding placebo.  
AI rank between > 81%: Excellent cosmetic result.

## TECHNICAL DATA SHEET

### BIOGRÜNDL ANTIOX 5%



#### Results:

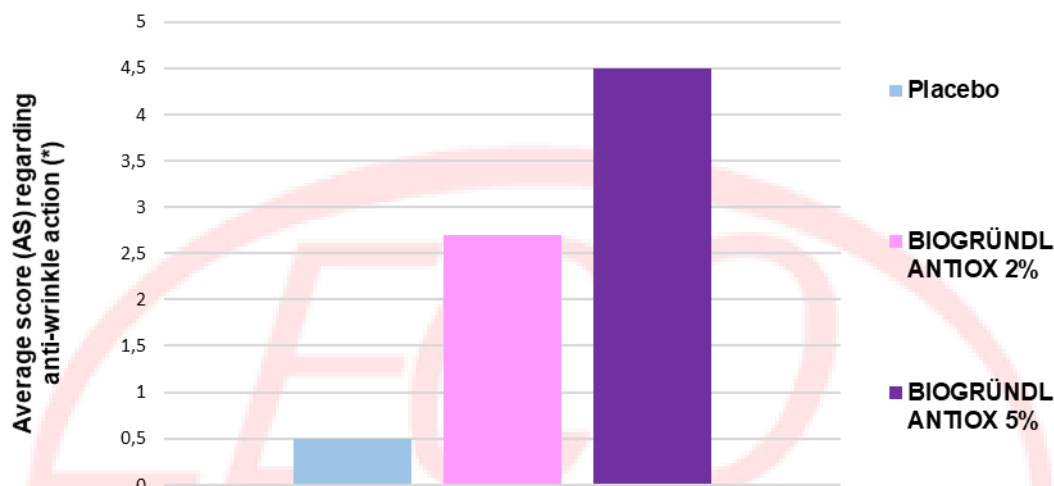
Worst result BIOGRÜNDL ANTIOX 5%: **18,5%**.  
Average result BIOGRÜNDL ANTIOX 5%: **36,5%**.  
Best result BIOGRÜNDL ANTIOX 5%: **45,5%**.

#### Results meaning:

AI rank between < 20%: No significant changes.  
AI rank between 21 – 40%: Slight improvement regarding placebo.  
AI rank between 41 – 60%: Appreciable improvement regarding placebo.  
AI rank between 61 – 80%: Great improvement regarding placebo.  
AI rank between > 81%: Excellent cosmetic result.

## TECHNICAL DATA SHEET

### SKIN CONDITION EVALUATION AFTER 30 DAYS



(\*) Anti-wrinkle action was determined by microscopic observation of depth and length of furrows, wrinkles and expression lines from volunteers.

Total number of days in which the assay was performed (treatment was applied):  
 D = 30 days ( every day during the effectiveness test).

Total number of days in which the results were measured:  
 D' = 1 day ( effectiveness test last day).

#### Average score:

**Worst result:** Zero limit value is assigned.

**Best result:** Five limit value is assigned.

Score is assigned to obtained results between the two limit values.

Average computation for each obtained results group is done:

Placebo, 2% BIOGRÜNDL ANTIOX by BIOGRÜNDL, S.L., 5% BIOGRÜNDL ANTIOX by BIOGRÜNDL, S.L..

#### Results meaning:

AS rank between 0 – 1: No significant changes.

AS rank between 1 – 2: Slight improvement regarding placebo.

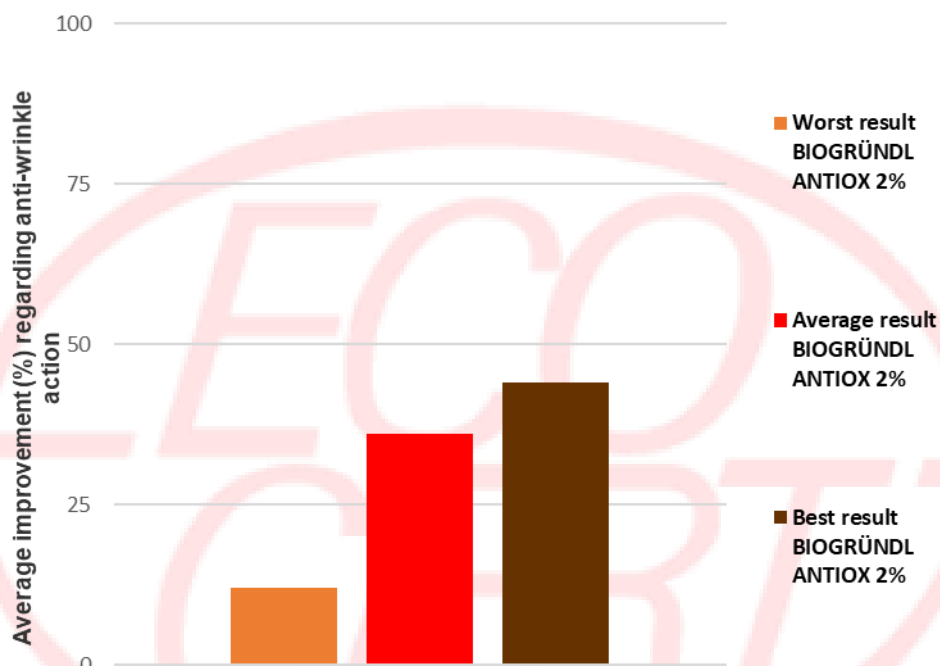
AS rank between 2 – 3: Appreciable improvement regarding placebo.

AS rank between 3 – 4: Great improvement regarding placebo.

AS rank between 4 – 5: Excellent cosmetic result.

## TECHNICAL DATA SHEET

### BIOGRÜNDL ANTIOX 2%



#### Results:

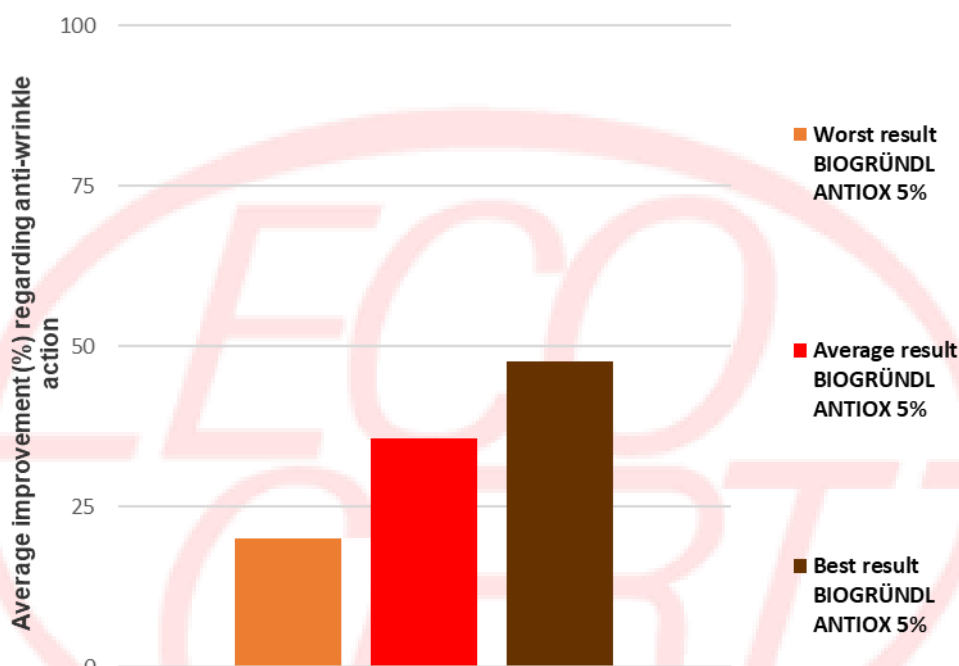
Worst result BIOGRÜNDL ANTIOX 2%: **12%**.  
 Average result BIOGRÜNDL ANTIOX 2%: **36%**.  
 Best result BIOGRÜNDL ANTIOX 2%: **44%**.

#### Results meaning:

AI rank between < 20%: No significant changes.  
 AI rank between 21 – 40%: Slight improvement regarding placebo.  
 AI rank between 41 – 60%: Appreciable improvement regarding placebo.  
 AI rank between 61 – 80%: Great improvement regarding placebo.  
 AI rank between > 81%: Excellent cosmetic result.

## TECHNICAL DATA SHEET

### BIOGRÜNDL ANTIOX 5%



#### Results:

Worst result BIOGRÜNDL ANTIOX 5%: **20%**.

Average result BIOGRÜNDL ANTIOX 5%: **35,5%**.

Best result BIOGRÜNDL ANTIOX 5%: **47,5%**.

#### Results meaning:

AI rank between < 20%: No significant changes.

AI rank between 21 – 40%: Slight improvement regarding placebo.

AI rank between 41 – 60%: Appreciable improvement regarding placebo.

AI rank between 61 – 80%: Great improvement regarding placebo.

AI rank between > 81%: Excellent cosmetic result.