



BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)
PHONE: +34 93 660 55 12 / FAX: +34 93 660 55 13
www.biogrundl.es
info@biogrundl.es

TECHNICAL DATA SHEET

ICELAND MOSS EXTRACT / A / HGL / CA11 /



Trade Name: ICELAND MOSS EXTRACT / A / HGL / CA11 /.

Product Code: ELQAHGLCA11.

INCI Name: AQUA, GLYCERIN, CETRARIA ISLANDICA EXTRACT, POTASSIUM SORBATE.

INCI Status: Conforms.

REACH Status: Low Volume Exemption.

CAS Number: 7732-18-5; 56-81-5; 93165-52-7; 24634-61-5 / 590-00-1.

EC Number: 231-791-2; 200-289-5; 296-939-0; 246-376-1.

Origin: GLYCERIN: Vegetable origin.

CETRARIA ISLANDICA EXTRACT: Vegetable origin.

POTASSIUM SORBATE: 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. 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/cm³ (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: Calming, protective and curative skin tissue products. Dry, unstressed, aged or with infection problems preparations. Psoriasis, acne and hyperkeratosis treatment.

Properties: Toning, nourishing, sedative, calming, antibiomatic, immunostimulant, lenitive, cleansing, emollient and anti-psoriasis.

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

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.

- Fitocosmeticos 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.



BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)
PHONE: +34 93 660 55 12 / FAX: +34 93 660 55 13
www.biogrundl.es
info@biogrundl.es

TECHNICAL DATA SHEET

OVERVIEW

Iceland moss or lichen (*Cetraria islandica* L.), belonging to the Parmeliaceae family, is native to cold and mountainous areas of Europe. It is a perennial plant with a very split stem, olive green or brownish colour, its fruits are brownish-red disks. It grows in rocks, trees and walls.

To obtain ICELAND MOSS EXTRACT, BIOGRÜNDL, S.L., starts with stalks, treating them with a mixture of water and glycerin which drags the following active ingredients:

- Carbohydrates, being the main one lichen mucilage (lichenin and isolichenin), with similar structure to that of cellulose and polisaccharid tipe.
- Lichenic acids.
- Antibiotics (usnic and protolichestic acids).
- Bitter substances.
- Triterpenes (friedelin).
- Organic acids (lichenostearic, oxalic, fumaric and tartaric acids).
- Celluloses and lignins.
- Polisaccharid tipe mucilages.
- Talaclor with similar characteristics to chlorophyll.
- Minerals (K, Fe, Na, Mg).

USE AND DOSAGE

The incorporation of iceland moss extract is justified by its toning, nourishing, sedative, calming, antibiotic, immunostimulant, lenitive, cleansing, emollient and anti-psoriasis properties. It has, also, dermo-purifying and curative actions of skin disorders.

Its use is recommended in calming, protective and curative skin tissue products. Also, in dry, unstressed, aged or with infection problems preparations. As well as, it is very useful to treat psoriasis, acne and hyperkeratosis.

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%.



BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)
PHONE: +34 93 660 55 12 / FAX: +34 93 660 55 13
www.biogrundl.es
info@biogrundl.es

TECHNICAL DATA SHEET

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/cm³ (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% ICELAND MOSS EXTRACT 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.



BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)
PHONE: +34 93 660 55 12 / FAX: +34 93 660 55 13
www.biogrundl.es
info@biogrundl.es

TECHNICAL DATA SHEET

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, CETRARIA ISLANDICA EXTRACT, POTASSIUM SORBATE.

EFFECTIVENESS TESTS

Assay: Double blind spot trial and subsequent cosmetic evaluation.

Assayed parameters: Toning action. Calming action. Emollient action.

N (volunteers): 30 (17 ♀ and 13 ♂).

Age (volunteers): 25 – 73 years old.

Left side part to be treated:

Placebo, 30 volunteers, suitable cosmetic base.

Right side part to be treated:

ICELAND MOSS EXTRACT 2%, 15 volunteers, suitable cosmetic base.

Right side part to be treated:

ICELAND MOSS EXTRACT 5%, 15 volunteers, suitable cosmetic base.



BIOGRÜNDL, S.L.
 POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
 08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)
 PHONE: +34 93 660 55 12 / FAX: +34 93 660 55 13
 www.biogrundl.es
 info@biogrundl.es

TECHNICAL DATA SHEET

Assayed parameters:

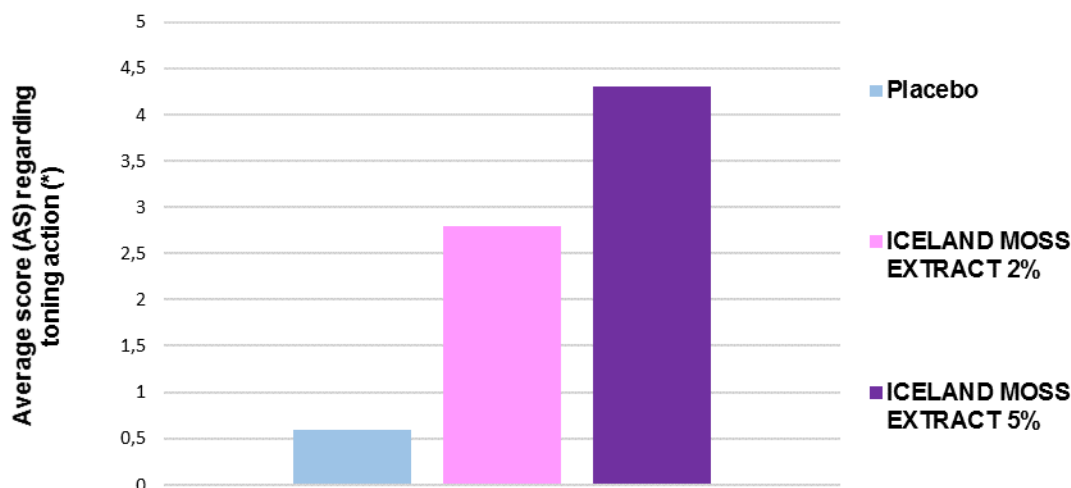
	Assay	N (volunteers)	Age (volunteers)	Placebo	ICELAND MOSS EXTRACT 2%	ICELAND MOSS EXTRACT 5%	Assay performed (Days)	Results measured (Days)
Toning action	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 17 ♀ and 13 ♂	25 – 73	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 15	D' = 1
Calming action	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 17 ♀ and 13 ♂	25 – 73	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 30	D' = 30
Emollient action	Double blind spot trial and subsequent cosmetic evaluation.	N = 30 17 ♀ and 13 ♂	25 – 73	Left side part	Right side part 15 volunteers.	Right side part. 15 volunteers.	D = 30	D' = 1



BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)
PHONE: +34 93 660 55 12 / FAX: +34 93 660 55 13
www.biogrundl.es
info@biogrundl.es

TECHNICAL DATA SHEET

SKIN CONDITION EVALUATION AFTER 30 DAYS



(*) Toning action was measured by a cutometer and by direct observation of volunteers skin firmness (tension).

Total number of days in which the assay was performed (treatment was applied):
D = 15 days (every other 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% ICELAND MOSS EXTRACT by BIOGRÜNDL, S.L., 5% ICELAND MOSS EXTRACT 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.

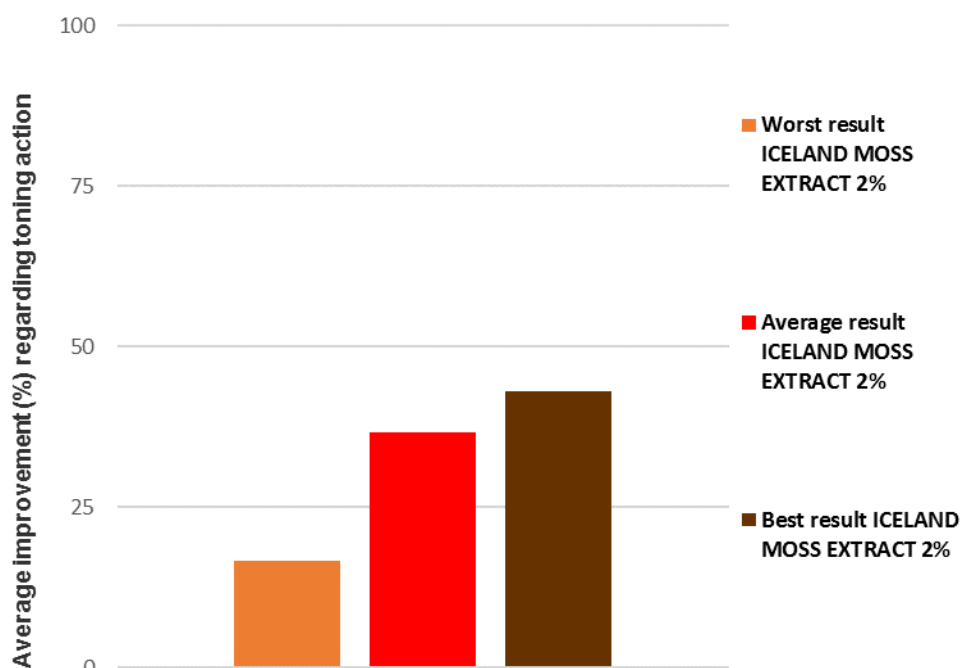
AS rank between 4 – 5: Excellent cosmetic result.



BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)
PHONE: +34 93 660 55 12 / FAX: +34 93 660 55 13
www.biogrundl.es
info@biogrundl.es

TECHNICAL DATA SHEET

ICELAND MOSS EXTRACT 2%



Results:

Worst result ICELAND MOSS EXTRACT 2%: 16,5%.

Average result ICELAND MOSS EXTRACT 2%: 36,5%.

Best result ICELAND MOSS EXTRACT 2%: 43%.

Results meaning:

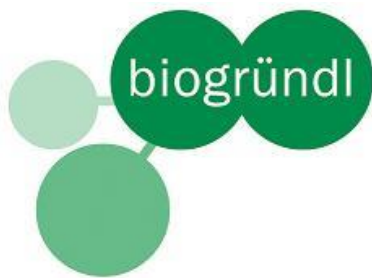
AI rank between < 20%: No significant changes.

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.

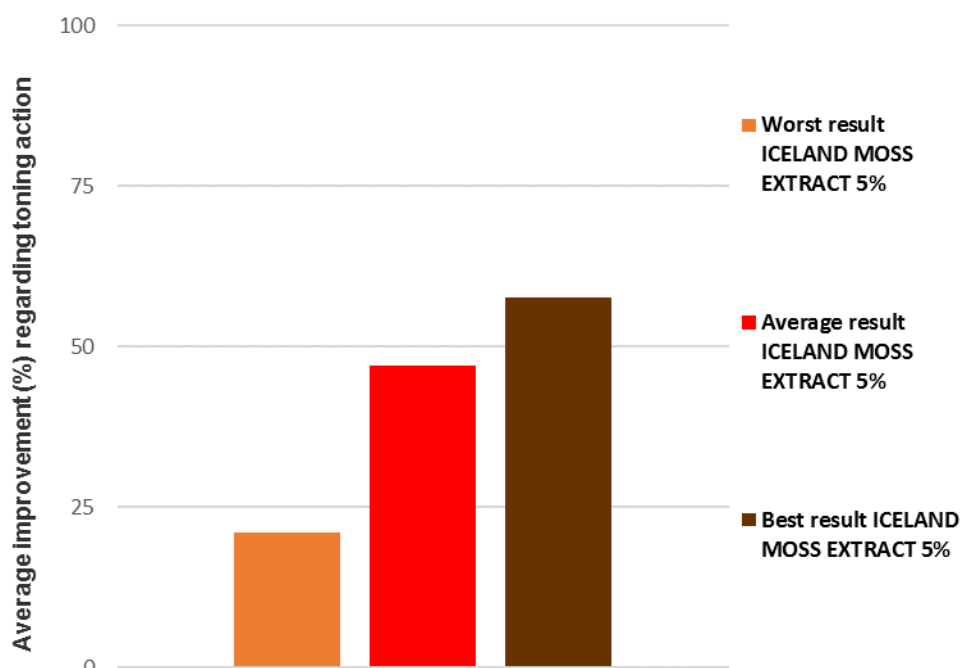
AI rank between > 81%: Excellent cosmetic result.



BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)
PHONE: +34 93 660 55 12 / FAX: +34 93 660 55 13
www.biogrundl.es
info@biogrundl.es

TECHNICAL DATA SHEET

ICELAND MOSS EXTRACT 5%



Results:

Worst result ICELAND MOSS EXTRACT 5%: 21%.
Average result ICELAND MOSS EXTRACT 5%: 47%.
Best result ICELAND MOSS EXTRACT 5%: 57,5%.

Results meaning:

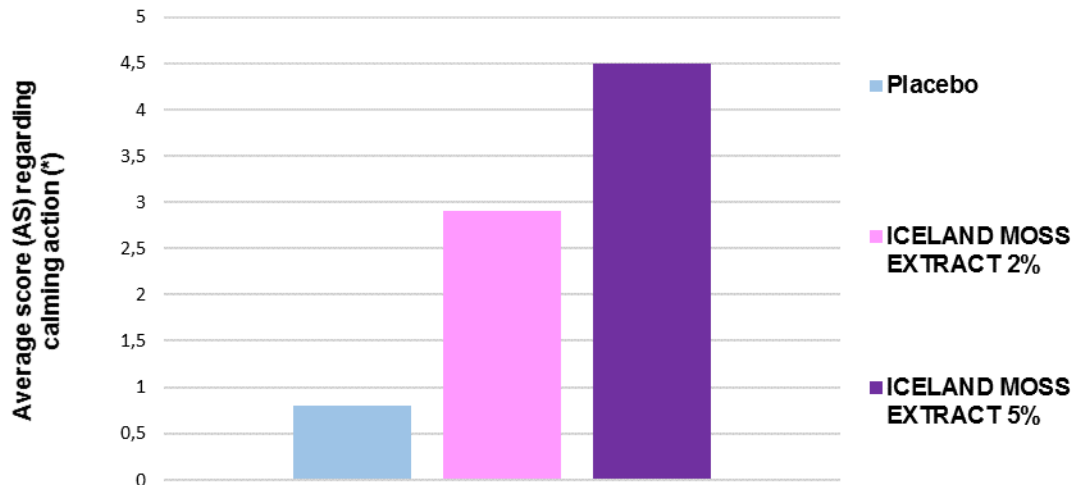
AI rank between < 20%: No significant changes.
AI rank between 21 – 40%: Slight improvement regarding placebo.
AI rank between 41 – 60%: Appreciable improvement regarding placebo.
AI rank between 61 – 80%: Great improvement regarding placebo.
AI rank between > 81%: Excellent cosmetic result.



BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)
PHONE: +34 93 660 55 12 / FAX: +34 93 660 55 13
www.biogrundl.es
info@biogrundl.es

TECHNICAL DATA SHEET

SKIN CONDITION EVALUATION AFTER 30 DAYS



(*) Calming action was measured by itch, redness and warm feeling decrease, by subjective assessment from volunteers, in the treated skin zone.

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' = 30 days (every day during the effectiveness test).

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% ICELAND MOSS EXTRACT by BIOGRÜNDL, S.L., 5% ICELAND MOSS EXTRACT by BIOGRÜNDL, S.L..

Results meaning:

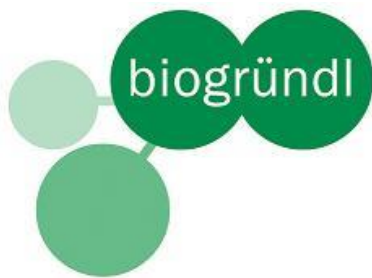
AS rank between 0 – 1: No significant changes.

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.

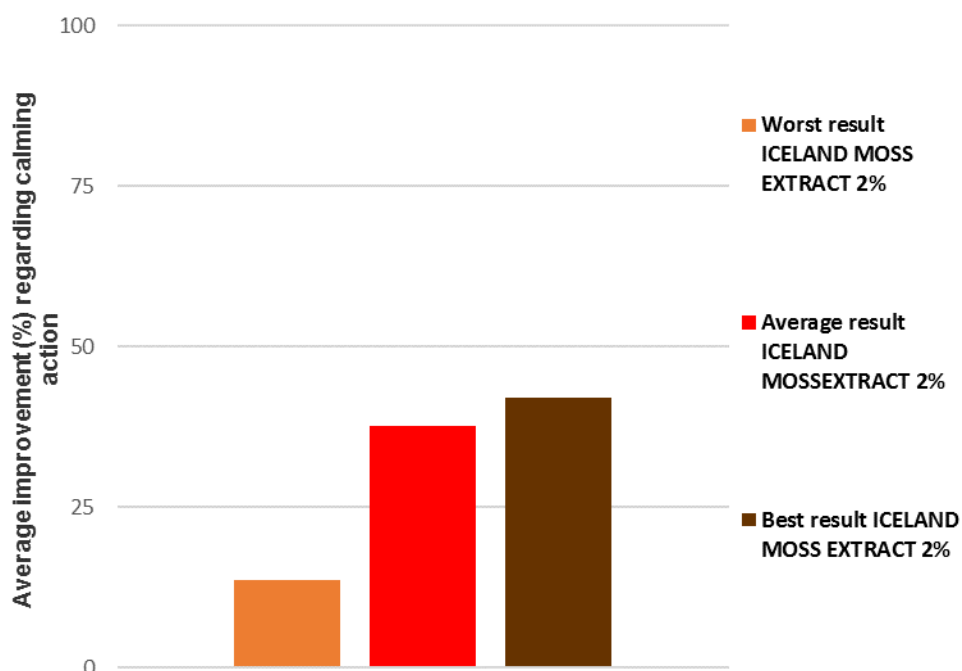
AS rank between 4 – 5: Excellent cosmetic result.



BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)
PHONE: +34 93 660 55 12 / FAX: +34 93 660 55 13
www.biogrundl.es
info@biogrundl.es

TECHNICAL DATA SHEET

ICELAND MOSS EXTRACT 2%



Results:

Worst result ICELAND MOSS EXTRACT 2%: 13,5%.

Average result ICELAND MOSS EXTRACT 2%: 37,5%.

Best result ICELAND MOSS EXTRACT 2%: 42%.

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.

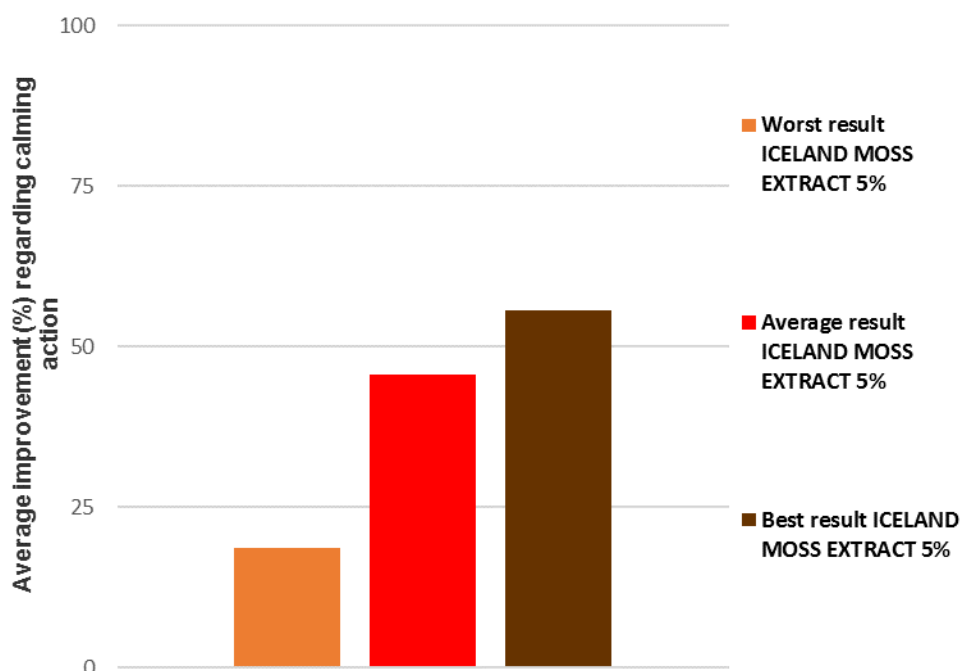
AI rank between > 81%: Excellent cosmetic result.



BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)
PHONE: +34 93 660 55 12 / FAX: +34 93 660 55 13
www.biogrundl.es
info@biogrundl.es

TECHNICAL DATA SHEET

ICELAND MOSS EXTRACT 5%



Results:

Worst result ICELAND MOSS EXTRACT 5%: 18,5%.

Average result ICELAND MOSS EXTRACT 5%: 45,5%.

Best result ICELAND MOSS EXTRACT 5%: 55,5%.

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.

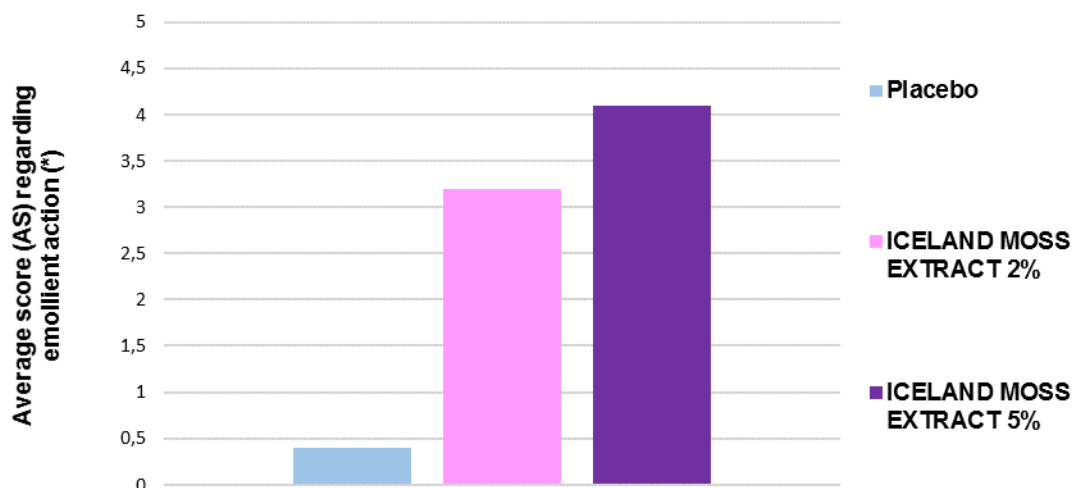
AI rank between > 81%: Excellent cosmetic result.



BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)
PHONE: +34 93 660 55 12 / FAX: +34 93 660 55 13
www.biogrundl.es
info@biogrundl.es

TECHNICAL DATA SHEET

SKIN CONDITION EVALUATION AFTER 30 DAYS



(*) Emollient action was determined by softening degree of calluses on volunteers treated body zone.

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% ICELAND MOSS EXTRACT by BIOGRÜNDL, S.L., 5% ICELAND MOSS EXTRACT 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.

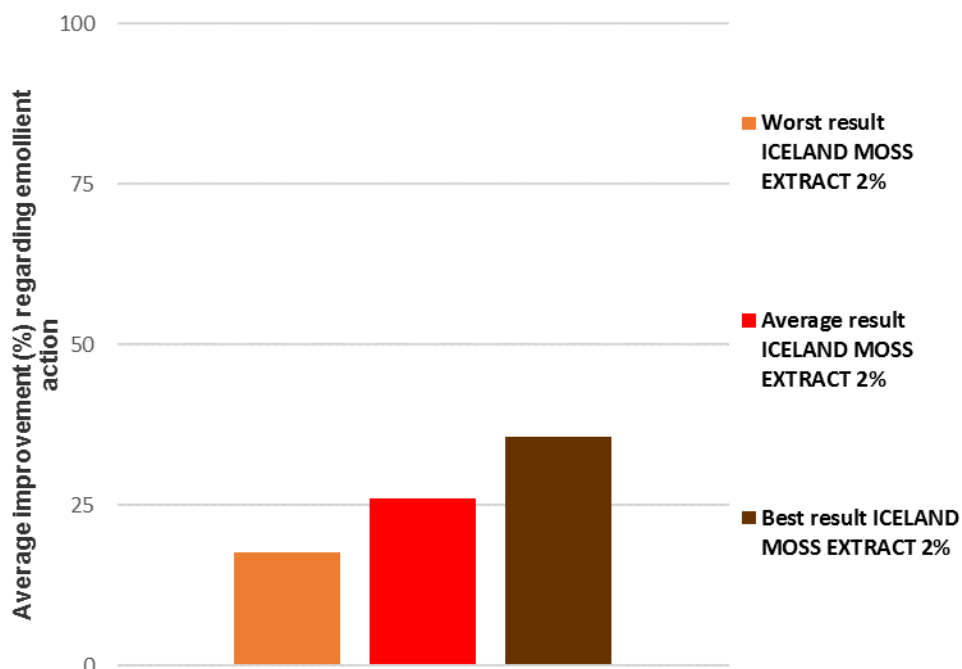
AS rank between 4 – 5: Excellent cosmetic result.



BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)
PHONE: +34 93 660 55 12 / FAX: +34 93 660 55 13
www.biogrundl.es
info@biogrundl.es

TECHNICAL DATA SHEET

ICELAND MOSS EXTRACT 2%



Results:

Worst result ICELAND MOSS EXTRACT 2%: 17,5%.

Average result ICELAND MOSS EXTRACT 2%: 26%.

Best result ICELAND MOSS EXTRACT 2%: 35,5%.

Results meaning:

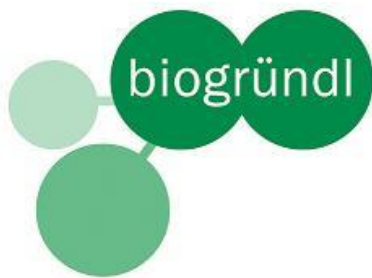
AI rank between < 20%: No significant changes.

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.

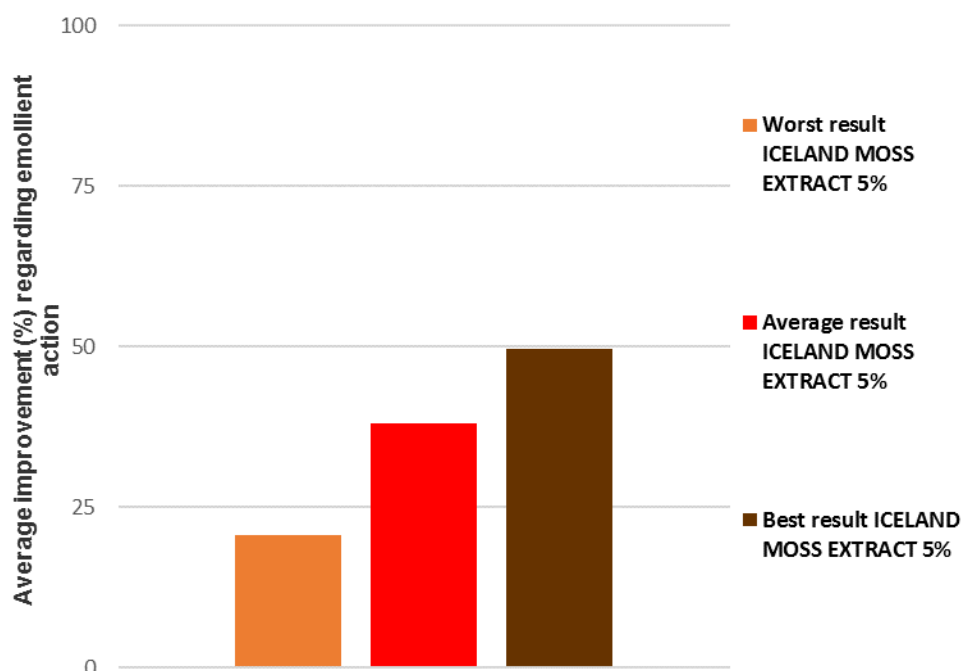
AI rank between > 81%: Excellent cosmetic result.



BIOGRÜNDL, S.L.
POLÍGONO LES FALLULLES, NAVE 34 -SECTOR 2-
08620 SANT VICENÇ DELS HORTS, BARCELONA (SPAIN)
PHONE: +34 93 660 55 12 / FAX: +34 93 660 55 13
www.biogrundl.es
info@biogrundl.es

TECHNICAL DATA SHEET

ICELAND MOSS EXTRACT 5%



Results:

Worst result ICELAND MOSS EXTRACT 5%: 20,5%.

Average result ICELAND MOSS EXTRACT 5%: 38%.

Best result ICELAND MOSS EXTRACT 5%: 49,5%.

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.