



Berg+Schmidt
Functional Lipids

BergaScrub

BergaScrub, the ideal ecological and economical alternative to microplastic beads

BergaScrub is a natural and environment-friendly alternative to the familiar microplastic polyethylene (PE) and polypropylene (PP) peeling beads that have come under criticism. It is based on GMO-free and renewable raw materials that are not used by the food industry.

The material is readily biodegradable per the OECD Guideline for Testing of Chemicals, thereby addressing the current concerns around micro-plastic materials.

The cost-effectiveness of BergaScrub plus its numerous advantages make it the ideal exfoliating bead product.

BergaScrub conforms to ECOCERT and COSMOS cosmetic standards.

Information:

Trade name:	BergaScrub 400
INCI:	Hydrogenated castor oil
Appearance:	Free-flowing white beads

BergaScrub advantages at a glance:

- **Natural, ecologically sound, renewable, non-GMO, readily biodegradable**
- **High melting point**
- **Long-term abrasive performances**
- **Ideal density for easy suspension**
- **Competitive**
- **Smooth but not perfectly flat surface => painless but effective exfoliation**
- **Conforms to ECOCERT and COSMOS cosmetic standards**
- **Not irradiated**

Applications:

- **Scrub cream/lotion/shower gel**
- **Exfoliating rinse-off products of any consistency**
- **Toothpaste**

Typical parameters:

Acid value:	≤ 3 mg KOH/g
Iodine value:	≤ 3 g I ₂ /100g
Gardner colour:	≤ 3
Melting point:	≥ 84°C

Application:

BergaScrub is not irradiated and is free of additives and preservatives, for a clean INCI name.

Thanks to a special manufacturing process, BergaScrub peeling particles exfoliate as well as or slightly better than the perfectly round PE beads and other beads based on hydrogenated oil (see picture 1 and 2) commonly found on the market. At the same time its unique structure shows no sharp edges like other natural alternatives such as sugar, sand or shell pieces, for painless exfoliation.

The high melting point allows very good stability even in 40 ° C test storage conditions. The abrasion properties of BergaScrub are retained in surfactant gel, for long-lasting performances. BergaScrub's low density is ideal for easy stabilization in suspension.

Recommended dosage:

- 0.5–10% depending on application and desired abrasive power
- 1-to-1 replacement for microplastic peeling beads with similar particle sizing



Picture 1: BergaScrub 400



Picture 2: Other alternatives based on hydrogenated oils, for example HCO

Example of a formulation: Double action rinsable peeling

Phase	Product	INCI Name	% (w/w)
A	BergaSoft DG 50	Decyl Glucoside	2.5
	Sodium Laureth Sulfate 70%	Sodium Laureth Sulfate	10.0
	Cocamidopropyl Betaine 30%	Cocamidopropyl Betaine	10.0
	EDTA	Tetrasodium EDTA	0.1
	Aqua FS-2 ³	Acrylates Crosspolymer-4	5.0
	Glycerin	Glycerin	2.0
	demin. Water	Aqua	up to 100
B	GlyAcid® 70 HP²	Glycolic Acid (and) Water	2.9
	NaOH	Sodium Hydroxide	up to pH 4.0
C	BergaScrub 400¹	Hydrogenated Castor Oil	1.0
	Preservative/ Fragrance	-	q.s.

Suppliers:

¹ Berg + Schmidt

² CrossChem distributed by Berg + Schmidt

³ Lubrizol