



IOI OLEOCHEMICAL

PERSONAL CARE

SOFTISAN[®] 649



Improves the skin barrier
Improves water resistance
Smoothing agent



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INCI: Bis-Diglyceryl Polyacyladipate-2

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(INCI: Bis-Diglyceryl Polyacyladipate-2) is a vegan, palm-based multifunctional ingredient (available in RSPO MB). It has a high water-binding capacity of 200%, is a great film former and helps to improve the skin barrier by reducing transepidermal water loss. SOFTISAN® 649 has the same properties as lanolin, but does not negatively affect the colour and the smell of a formulation.

DATASHEET

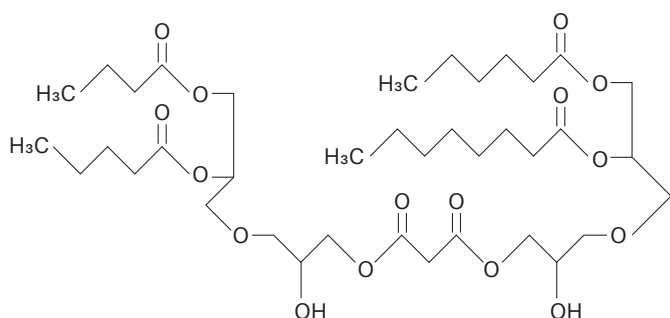
FORMULATOR BENEFITS:

- Requires low dosage: 0.5-5%
- Applicable for hot and cold processes
- Miscible with all fats and oils

CONSUMER BENEFITS:

- Improves the skin barrier
- Improves water resistance
- Long-lasting effect in colour cosmetics sticks

CHEMICAL STRUCTURE



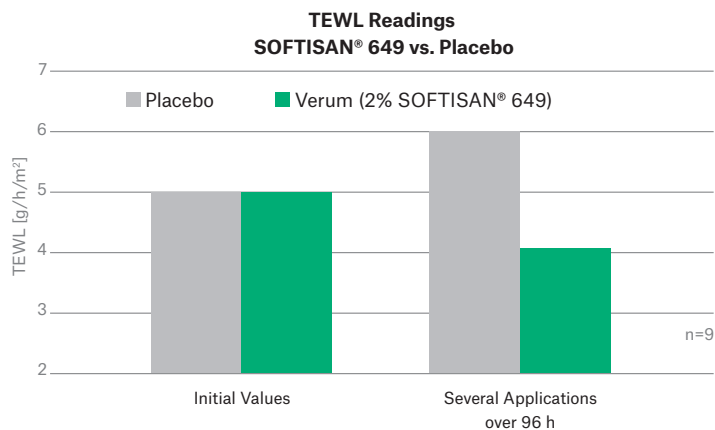
IMPROVEMENT OF THE SKIN BARRIER

A tewameter study was conducted to show the positive impact of SOFTISAN® 649 on transepidermal water loss (TEWL). Nine probands applied two creams (placebo/verum) on their left or right forearm twice a day for several days.

Basic test emulsion used for tewameter study:

TRADE NAME	INCI	Placebo [%]	Verum [%]
IMWITOR® 372 P	Glyceryl Stearate Citrate	3.0	3.0
IMWITOR® 900 K	Glyceryl Stearate	2.0	2.0
Nafol® 1618	Cetearyl Alcohol	1.0	1.0
WITARIX® MCT 60/40	Caprylic/Capric Triglyceride	20.0	20.0
Keltrol® CG-T	Xanthan Gum	0.3	0.3
SOFTISAN® 649	Bis-Diglyceryl Polyacyladipate-2	0.0	2.0
Euxyl PE 9010	Phenoxyethanol (and) Ethylhexylglycerin	0.7	0.7
Water	Aqua	73.0	71.0

RESULTS:



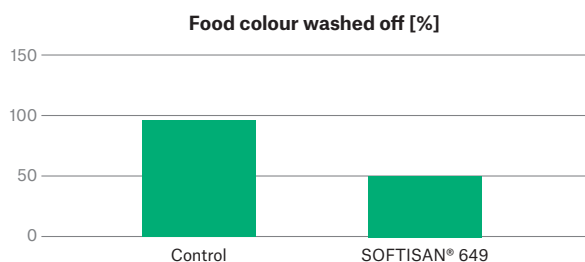
SOFTISAN® 649 can improve the skin barrier by reducing the transepidermal water loss (TEWL).

IMPROVEMENT OF WATER RESISTANCE

A study was conducted at East Westphalia-Lippe University of Applied Sciences and Arts to investigate the influence of SOFTISAN® 649 on water resistance.

Rinsed skin surface	18 cm ³
Type of colour	Food colour
Applied amount of colour	60 mg
Rinsing volume	2 L
Water temperature	30 +/- 2°C
Drying time of colour	2.5 min
Application time	10 min
Test product applied	2 mg/cm ²
Number of test persons	11

RESULTS:



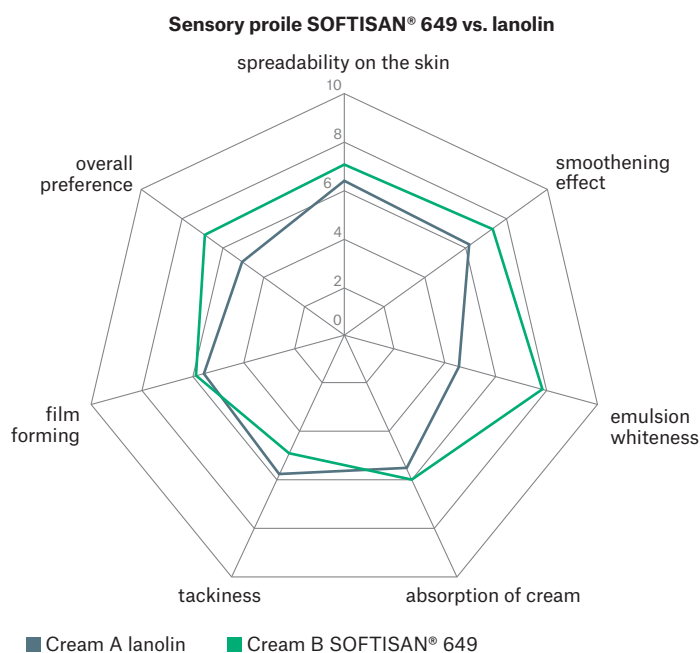
SOFTISAN® 649 was shown to increase water resistance through its film-forming properties.

IMPROVED SMOOTHENING EFFECT ON SKIN

A comparison of two blinded formulations was conducted with a test panel (n=12) of volunteers who were asked to test a defined quantity of the two creams on their forearms. Different sensorial parameters were evaluated. Cream A contained lanolin, known as smoothening agent in emulsions. Cream B contained SOFTISAN® 649.

TRADE NAME	INCI	Cream A [%]	Cream B [%]
SOFTISAN® 649	Bis-Diglyceryl Polyacyladipate-2	-	3.0
Lanolin	Lanolin	3.0	-
IMWITOR® 372 P	Glyceryl Stearate Citrate	2.5	2.5
IMWITOR® 900 K	Glyceryl Stearate	2.5	2.5
MIGLYOL® Coco 810	Coco Caprylate/Caprata	4.0	4.0
WITARIX® MCT 60/40	Caprylic/Capric Triglyceride	9.0	9.0
SOFTISAN® 378	Caprylic/Capric/Myristic/Stearic Triglyceride	3.0	3.0
Nafol® 1618 HP	Cetearyl Alcohol	1.0	1.0
Glycerine 99.5%	Glycerin	5.0	5.0
Aristoflex® AVC	Ammonium Acryloyl-dimethyltaurate/VP Copolymer	0.3	0.3
Preservative	-	0.7	0.7
Aqua dem.	Aqua	ad. 100.0	ad. 100.0
Tocopherol	Tocopherol	0.5	0.5
Fragrance	Parfum (EU) / Fragrance (US)	q.s.	q.s.
Sodium Hydroxide 10% in water	Sodium Hydroxide	q.s.	q.s.

RESULTS:



Creams A and B showed very similar sensory profiles. The smoothening effect was rated slightly higher for cream B, which contained SOFTISAN® 649.

FORMULATIONS:

Kiss My Lips (No.: 676)

PHASE	TRADE NAME	INCI	%
A	SOFTIGEN®PURA	Olus Oil	50.9
A	MIGLYOL® Gel B	Caprylic/Capric Triglyceride (and) Stearalkonium Hectorite (and) Propylene Carbonate	21.0
A	Shea Butter	Butyrospermum Parkii (Shea) Butter	4.0
A	IMWITOR® PG3 DIS	Polyglyceryl-3 Diisostearate	1.0
A	Arganöl desodoriert, bio	Argania Spinosa (Argan) Kernel Oil	1.0
A	SOFTISAN® 649	Bis-Diglyceryl Polyacyladipate-2	15.0
A	Beeswax	Beeswax	3.0
A	NACOL® 22-98	Behenyl Alcohol	3.0
B	Panthenol	Panthenol	0.1
B	Tocopherol	Tocopherol	0.5
B	Aroma Concentrate Vanilla/Caramel	Aroma	0.5

Preparation:

1. Melt phase A up to 80-85°C while stirring
2. Homogenise
3. Add ingredients of phase B at 40°C and stir until a homogeneous creamy super-cooled liquid has formed
4. Pour into moulds and cool down

Suppliers:

IOI Oleo GmbH: IMWITOR®, MIGLYOL®, SOFTIGEN®, SOFTISAN®
 Sasol Germany GmbH & Co. KG: NACOL®
 Bell Flavours & Fragrances: Aroma concentrate
 AOT: Arganöl desodoriert, bio

Ultra Rich Barrier Cream (No.: 805)

PHASE	TRADE NAME	INCI	%
A	MIGLYOL® T-C7	Triheptanoin	8.0
A	MIGLYOL® OE	Oleyl Erucate	3.0
A	IMWITOR® 600	Polyglyceryl-3 Polyricinoleate	3.5
A	SOFTISAN® 649	Bis-Diglyceryl Polyacyladipate-2	1.0
A	WITARIX® MCT 60/40	Caprylic/Capric Triglyceride	8.0
A	Arganöl desodoriert, bio	Argania Spinosa (Argan) Kernel Oil	2.0
A	Beeswax	Beeswax	2.0
A	Shea Butter	Butyrospermum Parkii (Shea) Butter	2.0
B	SOFTISAN® GC8 PalmFree	Glyceryl Caprylate	0.4
B	Zinc Sulfate Heptahydrate	Zinc Sulfate	1.2
B	Aqua dem.	Aqua	ad. 100.0
C	Tocopherol	Tocopherol	0.5
C	Fragrance	Parfum (EU)/ Fragrance (US)	0.2

Preparation:

1. Heat phases A and B separately to approx. 75-80°C
2. Add phase B to phase A in small amounts while stirring and then homogenise at low/medium speed
3. Cool phase A/B with gentle stirring to approx. 30°C
4. Add phase C and homogenise for a short time

Suppliers:

IOI Oleo GmbH: IMWITOR®, MIGLYOL®, SOFTISAN®, WITARIX®
 AOT: Arganöl desodoriert, bio

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