

dermamelan®

85

Me



science against  
hyperpigmentation

## dermamelan®

**dermamelan®** is the depigmentation method that provides an intensive corrective action on skin hyperpigmentations while regulating melanin overproduction, controlling reappearance of new spots in the long term.

### A cutting-edge formula

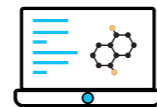
**dermamelan®** method combines the experience of **mesoestetic®** in the field of hyperpigmentation with the latest scientific research and the application of new technologies for its development:



Big data



Artificial intelligence



Computational design

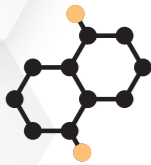
### Two patents supporting its innovation

**2** new PATENTS mesoestetic®



#### [SYN]pigmentarget®

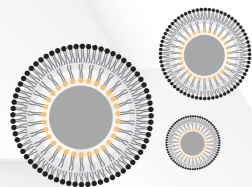
Unique combination of three selected active ingredients formulated at optimum concentrations, for a high-synergism therapeutic response in the interaction with key pigmentation targets.<sup>(1)</sup>



#### melaphenone®

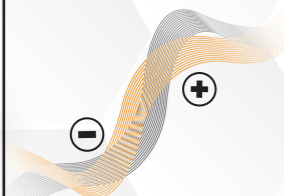
Own molecular design. Its molecular structure and 3D conformation provide a high specificity and safety in the inhibition of the activity of tyrosinase enzyme.<sup>(2)</sup>

### Transepidermal vehiculation systems



#### Multilamellar nanovesicles with targeted action

Carries and releases active ingredients selectively and improves their stability.



#### Iontophoresis

Technology that allows the formation of microchannels to improve permeability and facilitate that the active ingredient reaches its site of action.

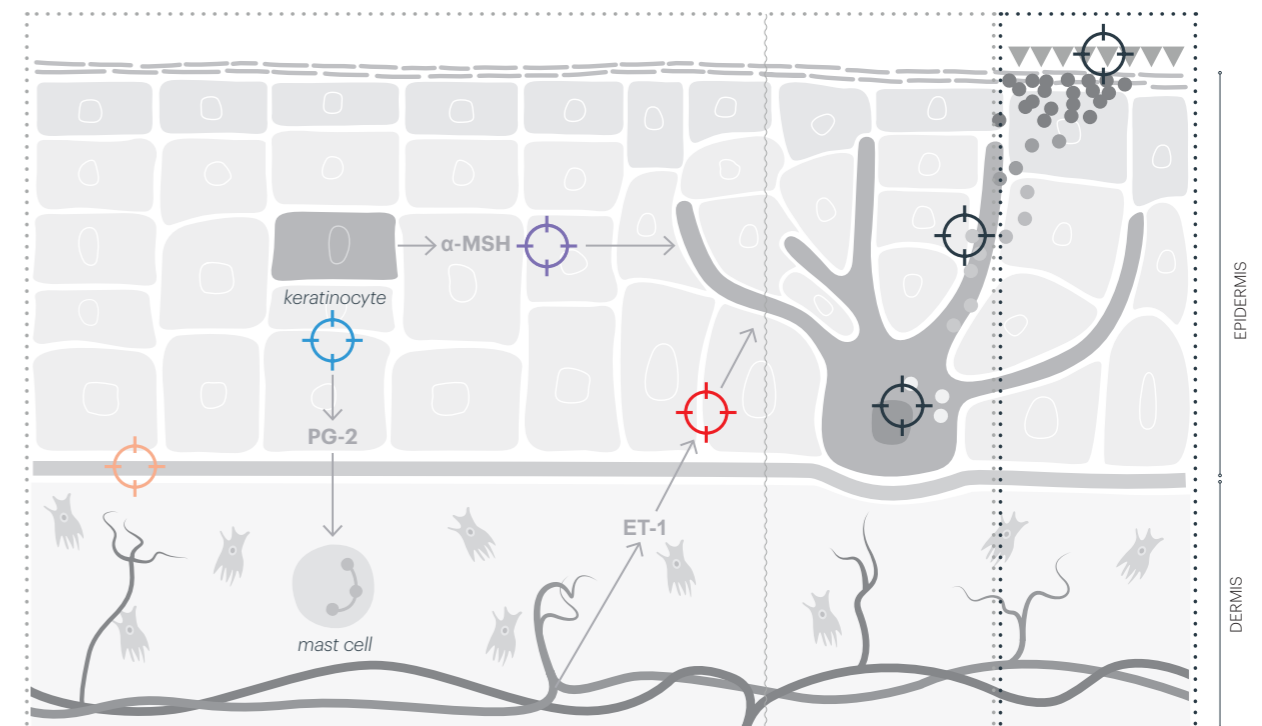
## Actions & Mechanisms

The latest medical-scientific developments in the field of hyperpigmentation have enabled us to identify new molecular targets responsible for the disease.

**dermamelan®** has been formulated specifically to **act effectively and synergistically** on the **main key targets** in the skin hyperpigmentation process. Its dual **corrective and regulating** action achieves a unique integral treatment to remove the existing spots and prevent their reappearance.

### REGULATING ACTION

### CORRECTIVE ACTION



#### TISSUE STRUCTURES

Protective action against destructuring of the **dermal-epidermal barrier** preventing the formation of **dermal melasma**.<sup>(6)</sup>



#### INFLAMMATION

It inhibits the main molecular mechanisms triggering **overstimulation of the melanocyte** associated with the inflammatory, vascular and hormonal component characteristic of the most resistant hyperpigmentations.<sup>(3, 4, 5)</sup>



#### HORMONAL



#### VASCULAR



#### PIGMENTATION

Controls the different pigmentation mechanisms, reducing **melanin synthesis**. Inhibition of melanocyte-keratinocyte transfer.<sup>(1, 2)</sup>



#### VISIBLE SPOT

Accelerating the cell renewal process, removing the **melanin deposits built up** in the stratum corneum.<sup>(7)</sup>

INTERCELLULAR ACTION

INTRACELLULAR ACTION

products for medical use only



dermamelan mask

Facial mask for professional use.

**INTENSIVE DEPIGMENTATION**

**Efficiently removes the melanin deposits built up** in the stratum corneum, reducing the existing pigmentation.

*Actuation time of four hours, regardless of the skin phototype.*

10 g jar



TARGETED-ACTION  
NANOVESICLES



dermamelan ion mask

Hydrogel facial mask for professional use.

**DEPIGMENTANT AND PERMEABILISER**

Containing depigmenting active ingredients with **corrective action**.

The **ionic technology** creates microchannels that facilitate transepidermal vehiculation.

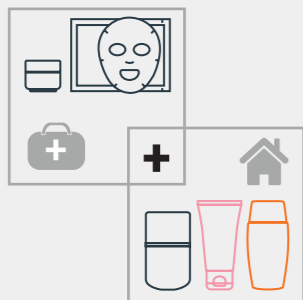
*Actuation time of four hours, regardless of the skin phototype.*

20 g mask



IONTOPHORESIS  
TECHNOLOGY

The full **dermamelan®** method must be performed to achieve the target result.



The action of the method products ensures:

- ^ Higher **depigmenting efficacy**.
- ^ Greater **comfort** during treatment.
- ✓ Lower **risk of repigmentation**.

Compliance with the home regimen is essential to meet the depigmenting objective in the short and long term.

products for home use



dermamelan treatment

Facial cream for home use.

**CORRECTIVE AND REGULATING**

It exerts a **gradual corrective** action and an **intensive regulating action**. It acts at two regulation levels:

- It inhibits **melanin synthesis** in the melanocyte, controlling the new formation of pigment.
- It regulates the main known targets that cause **melanocyte overstimulation**.

airless 30 g



TARGETED-ACTION  
NANOVESICLES



melan recovery

Facial balm for home use.

**SOOTHING AND REGENERATING**

It returns nutrition and balance to skin that has been subject to tissue renewal treatments.

It relieves and reduces sensitivity, providing comfort in case of inflammatory signs and redness.

50 mL tube



mesoprotech® melan 130 pigment control

Facial sunscreen for home use.

**SPECIFIC PHOTOPROTECTION FOR PIGMENTED SKIN**

Very high sunscreen with colour, of maximum efficacy and safety against 131 UVB and 67 UVA. It protects the skin and helps control skin pigmentation.

50 mL bottle



PHOTOPROTECTION  
SOLUTIONS



oil removing solution

new formula



dermamelan mask

new



dermamelan ion mask

new formula



dermamelan treatment

evo



melan recovery

new image



mesoprotech® melan 130 pigment control

**TREATMENT AT THE CLINIC**

4 h

48 h / 72 h

**HOME TREATMENT**

4 MONTHS

intensive depigmentation

Treatment at the clinic exerts an **intensive depigmentation action** focused on acceleration of the cell renewal process and elimination of melanin deposits built up in the skin.

STEP 1

CLEANING AND PREPARATION OF THE SKIN

Apply the **oil removing solution** using a gauze over the previously clean, dry skin.

STEP 2

INTENSIVE DEPIGMENTATION

Spread the entire content of the package, 10 g of **dermamelan mask** evenly over the face, avoiding contact with sensitive areas.\*

STEP 3

MAXIMISES PENETRATION OF ACTIVE INGREDIENTS

Place the hydrogel side of **dermamelan ion mask** directly over **dermamelan mask**. The application of this mask maintains moisture levels and maximises the action of the active ingredients.



Leave both masks on for **4 hours** regardless of the severity of hyperpigmentation and the skin phototype.



REMOVAL OF FACE MASKS

At the end of the four hours, the patient must remove the **dermamelan ion mask** gently detaching the mask from the face. Subsequently remove the **dermamelan mask** with plenty of warm water, avoiding contact with the eyes.

continuous depigmentation and regulation of hyperpigmentation

After 48/72 h of removal of the masks, home treatment starts.

The home regimen provides a **continuous depigmenting action**, reducing the spot progressively during the treatment. It also exerts a **regulating action** in the long term inside the melanocyte, reducing melanin synthesis and acting on the origin of hyperpigmentation to **control reappearance of the spot**.

HOME REGIMEN



Apply **dermamelan treatment** twice a day followed by **melan recovery**, and **mesoprotech® melan 130 pigment control** during daily applications.

\*Lower eyelids, lateral canthus, furrows of the wings of the nose, and mucous lips.

**new:** new-development product. **evo:** developed product with redesigned formula, packaging and/or image for a better efficacy and consumer experience.

Case reports<sup>(7)</sup>



before

after



before

after



before

after



before

after



before

after



before

after



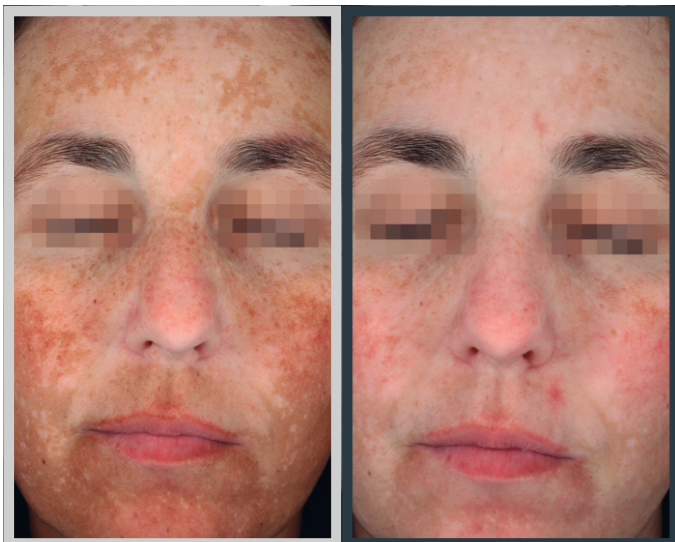
before

after



before

after



before

after



before

after



before

after

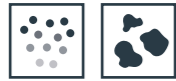


before

after

# dermamelan®

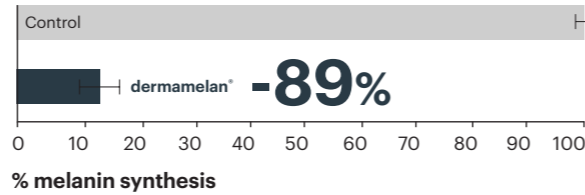
## In-vitro efficacy studies



### TOTAL MELANIN

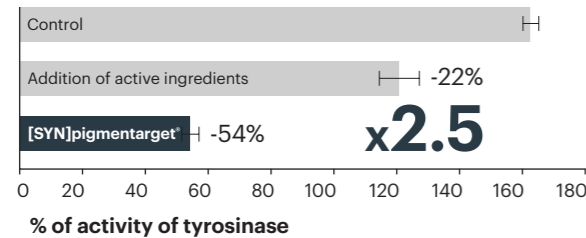
Inhibition of melanin formed in a culture of treated melanocytes vs. control culture.

Melanocytes stimulated with L-tyrosine<sup>(9)</sup>.



### SYNERGISTIC ACTIVITY OF [SYN]pigmentarget®

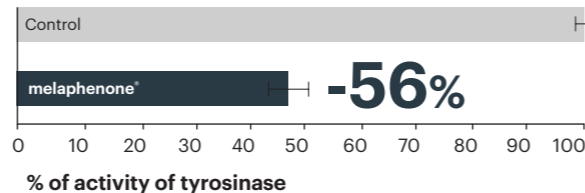
Synergy is demonstrated by comparing inhibition of tyrosinase activity of the actives separately vs. the actives together.



Culture of melanocytes stimulated with L-tyrosine<sup>(9)</sup>.

### EFFICACY OF melapenone®

It demonstrates the effectiveness of its inhibitory action of the enzyme tyrosinase achieve a regulation of melanin synthesis.



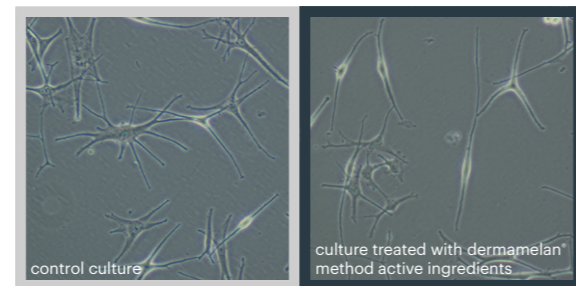
Culture of melanocytes stimulated with melapenone<sup>(10)</sup>.

## Assessment of the efficacy of dermamelan® in the activity of the different intercellular pathways

### HORMONAL

Inhibits the dendricity of melanocytes cultured with α-MSH.

Study in vitro (microscopy)<sup>(3)</sup> culture of melanocytes stimulated with IBMX, an activator of the α-MSH pathway.



### VASCULAR

Inhibition of the DCT enzyme in melanocytes stimulated with ET-1.



Study in vitro (qPCR)<sup>(4)</sup> culture of melanocytes stimulated with ET-1 and treated with dermamelan®

### INFLAMMATION

Inhibition of the PG-2-producing enzyme



Study in vitro (qPCR)<sup>(5)</sup> culture of fibroblasts stimulated with IL-1 and treated with dermamelan®

### TISSUE STRUCTURES

Improved TIMP3 expression that inhibits MMP that degrade collagen IV.



Study in vitro (qPCR)<sup>(6)</sup> culture of fibroblasts treated with dermamelan®

## Other complementary depigmenting solutions

### Professional medical products



pH 1.3

**mesopeel melanostop tran3x**  
50 mL

20% azelaic + 10% resorcinol + 6% phytic + 3% tranexamic acid

Depigmenting peel that removes the accumulated melanin and regulates melanocyte activity. Its formula provides a perfect balance between efficacy and tolerance.

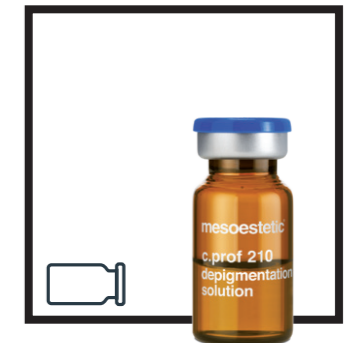


pH<1

**mesopeel melanoplus**  
5 x 5 mL

20% trichloroacetic acid + 4% kojic acid + 1% ferulic acid + tazarotene

Depigmenting peel for focal use to treat resistant hyperpigmentations. Self-neutralising. For medical use only.



**c.prof 210 depigmentation solution**  
5 x 5 mL

Vitamin C + idebenone + NAG (n-acetyl glucosamine) + tranexamic acid

Transepidermal solution that regulates melanin production and removes the melanin responsible for visible pigmentation. It contains antioxidant agents that regulate melanin overproduction.

### Home products

#### melan tran3x concentrate & gel cream

30 mL / 50 mL

Home depigmenting programme with synergistic action formulae that act daily and progressively on hyperpigmentations, reducing dark spots. With tranexamic acid.



#### dermamelan® and laser<sup>8</sup>

In medium and high phototypes, the efficacy of laser is less precise and the risk of PIH is higher. In these profiles, dermamelan method is preferably recommended due to its profile of tolerance, efficacy and lower risk of relapses. Furthermore, in light phototypes the combination of laser treatment with dermamelan enhances treatment success, correcting and controlling melanin overproduction, offering a more intense and longer-lasting solution.

An evolution in the field of hyperpigmentation using the **latest medical-scientific developments.**

**Formulae with synergistic and complementary action** in the different targets of the pigmentation process.

**Systems of vehiculation and penetration** for maximum efficiency of the active ingredients.

The only depigmentation treatment with **all-in-one corrective, regulating action** at two levels.



1. Study *in vitro* on the inhibition of tyrosinase with **[syn]pigmenTarget**<sup>®</sup>. Unit of biotechnology of mesoestetic Pharma Group S.L. (INF265.UB.SEP.2020). 2. Enzyme assay on the activity of tyrosinase with **melaphenone**<sup>®</sup>. Unit of biotechnology of mesoestetic Pharma Group S.L. (INF266.UB.MAY.2021). 3. Study on the dendricity of melanocytes stimulated with IBMX, an activator of the  $\alpha$ -MSH pathway, and treated with **dermamelan** by microscopy (Olympus CKX41). Unit of biotechnology of mesoestetic Pharma Group S.L. (INF278.UB.MAY.2021). 4. Study on the genetic expression of TRP-2 /DCT by qPCR in culture of melanocytes stimulated with E1 and treated with **dermamelan**. Unit of biotechnology of mesoestetic Pharma Group S.L. (INF274.UB.FEB.2021). 5. Study on the genetic expression of COX-2 by qPCR in culture of fibroblasts stimulated with IL-1 and treated with **dermamelan**. Unit of biotechnology of mesoestetic Pharma Group S.L. (INF275.UB.MAR.2021). 6. Study on the genetic expression of TIMP3 by qPCR in culture of fibroblasts treated with **dermamelan**. Unit of biotechnology of mesoestetic Pharma Group S.L. (INF279.UB.MAY.2021). 7. Clinical study on the efficacy of **dermamelan**. Medical Unit of mesoestetic Pharma Group S.L. 2020. 8. Skin Therapy Lett. 2016 Jan;21(1):1-7.



mesoestetic Pharma Group, s.l.  
C/ Tecnologia, 25  
08840 - Viladecans (Barcelona)  
Tel. +34 93 325 20 30  
www.mesoestetic.com  
made in Spain