

# Tropical Photobiology: Sunscreen Habits & The 'Dry-Touch' Culture in Brazil & Mexico (Market & Science Review 2020)

Por Cristiano Ricardo · Publicado em 28/12/2020

University lecture by Prof. Cristiano Ricardo on cosmetic science and consumer behavior in Brazil and Latin America, exploring tropical photobiology: sunscreen habits & the 'dry-touch' culture in Brazil & Mexico with colorful schematics and market cases.

Versão online e eventuais atualizações:

<https://cristianoricardo.com/post/tropical-photobiology-sunscreen-habits-the-dry-touch-culture-in-brazil-mexico-2020-12-28>

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## Tropical Dermocosmetology & Photoprotection Behavior · Brazil & Latin America Insights

While Latin America faces extreme UV radiation indices (UVI 11–14+), consumer adoption hinges not on SPF numbers, but on solving post-application stickiness and shine.

## Market Dynamics & Formulation Architecture

European/US Formula

Heavy emollient film (Dewy)

Perceived as 'greasy' in tropics

Rejected by 78% of LatAm users

LatAm 'Toque Seco' (Dry-Touch)

Silica + Tapioca Starch + Netting

Anti-shine & Sebum-absorbing

Instant Matte Finish & Tinted Hybrid

## The Phototype III–V Predominance & Melasma Vulnerability

In Brazil, Colombia, and Mexico, Fitzpatrick phototypes III to V represent over 70% of the population. These skin types have highly responsive melanocytes prone to post-inflammatory hyperpigmentation (PIH) and recalcitrant melasma triggered by both UVA and visible blue light, driving massive demand for tinted sunscreens containing iron oxides that double as daily makeup foundation.

## The Sensory Dealbreaker: Humidity and Sebum Production

In tropical climates, sebum excretion rates increase by up to 10% per 1°C rise in temperature. Formulations containing heavy occlusive waxes or slow-spreading mineral oils fail consumer sensory trials. The gold standard requires volatile dry emollients (e.g.,

C13-15 Alkane, Isododecane) paired with spherical polymer powders that deliver instant sebum-adsorption.

## Market Realities in Brazilian Pharmacies

Facial sunscreens represent one of the highest-revenue dermocosmetic categories in Brazilian drugstores (RaiaDrogasil, Pacheco). Brands that cracked the 'Toque Seco' code (like Anthelios Airlicium and Minesol) achieved legendary consumer loyalty by formulating specifically for tropical skin physiology.

Prof. Cristiano Ricardo

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