

Titanium & Zinc in Foundation

DIGESTION OF FOUNDATION FOR TITANIUM & ZINC USING COLDBLOCK™ DIGESTION TECHNOLOGY

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Introduction

This application note will focus on the digestion of foundation for combination/oily skin – broad spectrum with SPF 15 using ColdBlock™ Digestion CB12L Technology.

Method

Triplicate samples of homogenized foundation were digested using the following method:

- Chiller temperature was set to -5°C
- Sunscreen was shaken and mixed for ~3-5 minutes to create a homogenous sample
- 0.25g of the homogenous sample was weighed and placed into a ColdBlock™ Digestion vessel.
- 15mL of H₂SO₄ was added carefully
- Sample was digested at 100% power for 10 minutes.
- Then 5mL Aqua Regia & 3mL H₂O₂ was added and digested again at 100% for 5 minutes
- Sample was carefully decanted to a plastic 50mL tube and 3.5g of NH₄F (a safer alternative to HF) was added slowly to the hot digestate
- Once the sample was clear ~1 minute, it was topped up to 50mL with 2% HNO₃
*Complete Dissolution/Total Digestion – HF created in situ

Instrument

ColdBlock™ Digestion CB12L Technology.

General

This procedure is specific for the sample digested and may need modification for different samples to achieve the desired result.