Barium Sulfate for cosmetics

H series

Sakai Chemical Industry Co., Ltd.

http://www.sakai-chem.co.jp
Features of Barium Sulfate H series

- Clear white platy powder that is the most suitable material for cosmetic use
- Long lasting of clear whiteness even then be wetted with the perspiration
- Low coefficient value of kinematic friction approaching to boron nitrite
- Blurring effect on skin imperfections as a result of light diffusing with its optimum refractive index, which is slightly higher than human skin
SEM Photographs

HF NEW!

H

HM

HL

HP NEW!

HG NEW!
Long lasting of clear whiteness even after being wetted with sebum

Initial Powder Colour

After being wetted with artificial sebum
Low coefficient of kinematic friction approaching to boron nitrite (Unit: MIU)
Blurring Effect compared to Synthetic Mica

Flake-shaped Barium Sulfate

Synthetic Mica
Optical Property of Barium Sulfate H series

<table>
<thead>
<tr>
<th>Material</th>
<th>Refractive index</th>
<th>Function Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synthetic Mica</td>
<td>1.56</td>
<td>No optical functions, skin imperfections are observed clearly.</td>
</tr>
<tr>
<td>Barium Sulfate H</td>
<td>1.64</td>
<td>Blurring the skin imperfection without diminishing the natural color tone of human skin</td>
</tr>
<tr>
<td>TiO₂</td>
<td>2.76</td>
<td>Hiding the natural color tone of human skin as well as skin imperfection</td>
</tr>
</tbody>
</table>

Below the table, there is a diagram illustrating the interaction of light with skin and melanin at various refractive indices.
Reflection of the light
measured by GP-200 Goniophotometer

![Graph showing the reflection of light measured by GP-200 Goniophotometer. The graph plots the relative reflective intensity against the receiving angle. Various materials, such as barium sulfate, sericite, synthetic mica, and boron nitride, are tested and compared. The graph displays multiple curves, each representing a different material.](image)
Intensity of Blurring Effect

(* Soft Focus Index = 0°reflection / 45°reflection)
# Flake shaped Barium Sulfate H series Grade List

<table>
<thead>
<tr>
<th></th>
<th>HF&lt;sup&gt;NEW!&lt;/sup&gt;</th>
<th>H</th>
<th>HM</th>
<th>HL</th>
<th>HP&lt;sup&gt;NEW!&lt;/sup&gt;</th>
<th>HG&lt;sup&gt;NEW!&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>matte</td>
<td>matte</td>
<td>matte</td>
<td>low luster</td>
<td>low luster</td>
<td>luster</td>
</tr>
<tr>
<td><strong>Average particle size</strong></td>
<td>4</td>
<td>7</td>
<td>10</td>
<td>15</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td><strong>Oil absorption (ml/100g)</strong></td>
<td>29</td>
<td>26</td>
<td>25</td>
<td>24</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td><strong>Spreadability</strong></td>
<td>good</td>
<td>very good</td>
<td>very good</td>
<td>very good</td>
<td>excellent</td>
<td>fair</td>
</tr>
<tr>
<td><strong>Blurring Effect</strong></td>
<td>excellent</td>
<td>very good</td>
<td>very good</td>
<td>good</td>
<td>good</td>
<td>fair</td>
</tr>
</tbody>
</table>
Barium Sulfate H series is essential material for beautiful makeups

For Foundations
For Lipstics
For Point Makeups
For skin care products....
The above data is based on our practical experience and should not be accepted as the brochure of any liability or guarantees. Please peruse our material safety data sheet before handling these products. And also do not hesitate contact our offices for further information.

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