# Products

## Refined Bentonite

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Mineral</th>
<th>Form</th>
<th>Viscosity (Representative value)</th>
<th>Adoption Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kunipia-F*</td>
<td>Montmorillonite</td>
<td>Powder</td>
<td>300 mPa·s s</td>
<td>Cleaning Agent Water Paint Flowable Agrochemical Product Fireproof, Flame Retardancy Filler for Resin Barrier Film Cosmetics</td>
</tr>
<tr>
<td>Kunipia-G*</td>
<td>Montmorillonite</td>
<td>Flake</td>
<td>300 mPa·s s</td>
<td></td>
</tr>
<tr>
<td>Kunipia-G4*</td>
<td>Montmorillonite</td>
<td>Flake</td>
<td>500 mPa·s s</td>
<td></td>
</tr>
</tbody>
</table>

Above are representative values, not standard values.

## Synthetic Smectite

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Mineral</th>
<th>Transparency</th>
<th>High Viscosity</th>
<th>Adaption</th>
<th>High Heat Resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sumecton-SA*</td>
<td>Saponite</td>
<td>75</td>
<td>4,000 mPa·s s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sumecton-ST</td>
<td>Stevensite</td>
<td>97</td>
<td>1,000 mPa·s s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sumecton-SWN*</td>
<td>Hectorite</td>
<td>95</td>
<td>4,000 mPa·s s</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sumecton-SWF</td>
<td>Hectorite</td>
<td>95</td>
<td>6,000 mPa·s s</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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*Conform to “Japanese Standards of Quasi-drug Ingredients 2021”*
About BENTONITE

“BENTONITE” is the name of rock (the general term for aggregate of mineral), the main component is “Montmorillonite” as clay mineral. Kunipia is refined inorganic material, which is refined montmorillonite to be high purity.

Kunipia and Sumecton are called “Layered Silicate Mineral” belong to Smectite group as clay mineral. Smectite is included Montmorillonite, Beidellite, Saponite, Stevensite and Hectorite.

Properties & Benefits - Recommended for use

- **Viscosity**: To obtain characteristic thixotropic property of inorganic substance by forming the card-house structure.
- **Caking Property**: By wetting, unique caking property of inorganic substance is obtained, and use as inorganic binder.
- **Flame Retardance Heat Resistance**: Bentonite is inorganic material and also lame retardant material, has extremely high heat resistance.
- **Gas Barrier Property**: Expect gas barrier effect as using high aspect ratio.

Montmorillonite Crystal

Clay mineral bind raw mineral particles and impart caking property.

By applying clay film to the resin, it imparts flame retardance and heat resistance.

By laminating clay crystals with high aspect ratio, gas barrier property is obtained.

Viscosity x Thixotropy

High

- Inorganic Mouldings
- Cosmetics

Law

- Sumecton-SWF
- Sumecton-SA
- Sumecton-SWN

Thixotropy

High

Viscosity

Caking Property

Flame Retardance

Heat Resistance

Gas Barrier Property

To uniformly disperse pigments and particles so prevent sedimentation.