TOSPEARL 120 is a silicone micro resin for use as an additive to improve the performance of plastics, rubbers, paints, etc. In addition to providing the specific characteristics of silicones, such as water repellency and lubricity, TOSPEARL 120 has a lower specific gravity than conventional inorganic fine powders and also has excellent heat resistance as compared with conventional organic fine powders.

**KEY FEATURES**
- Excellent water repellency
- Excellent lubricity (light lubrication)
- Lower specific gravity than inorganic fine powder
- Superior to organic fine particles in heat resistance
- Insoluble in organic solvents
- Low cohesiveness
- No melt even if heated to 900°C
- Upon calcination, gives truly spherical silica fine particles
- When charged negatively, amount electrified is large
- Sharp particle size distribution

**APPLICATIONS**
- Rubber Industry: Improvement in wear resistance, modification of slip properties of rubber surfaces
- Paints and Ink: Clarification of color tone, luster control, blocking prevention, wear resistance improvement
- Synthetic Resin: Increasing wear resistance of synthetic resins such as epoxy, acrylic, polyester, and ABS; blocking prevention, slip property improvement, and maintenance of transparency of plastic films such as PE and PP
- Others: Improvement in dispersibility, flowability and aggregation prevention of pigments and ceramic particles

**TYPICAL PROPERTY DATA**

<table>
<thead>
<tr>
<th>PROPERTIES</th>
<th>Truly spherical, fine white particle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Truly spherical, fine white particle</td>
</tr>
<tr>
<td>Mean particle diameter</td>
<td>2.0 μm</td>
</tr>
<tr>
<td>Mean particle diameter</td>
<td>2.0 μm</td>
</tr>
<tr>
<td>Property</td>
<td>Value</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Weight loss (250°C, 30min)</td>
<td>0.7</td>
</tr>
<tr>
<td>pH*</td>
<td>7.0</td>
</tr>
<tr>
<td>True specific gravity (25°C)</td>
<td>1.32</td>
</tr>
<tr>
<td>Bulk specific gravity</td>
<td>0.35</td>
</tr>
<tr>
<td>Specific surface area</td>
<td>30</td>
</tr>
<tr>
<td>Linseed oil absorption</td>
<td>75</td>
</tr>
</tbody>
</table>

*: 2% dispersed in a solution of Methanol/Water=1/1

Typical property data values should not be used as specifications.

PARTICLE SIZE DISTRIBUTION

![Graph showing particle size distribution with instrument details: Particle analyzer HORIBA CAPA-700, dispersion medium: IPA, dispersing condition: Ultrasonic dispersion.]

ELECTRON MICROGRAPH

![Electron micrograph image with notes: Heating rate: 10°C/minute, atmosphere: air.]

HEAT RESISTANCE

Thermogravimetric analysis date of TOSPERAL 120 and other organic resin fine particles are shown below.
Differential thermal analysis date of TOSPEARL 120 and PTFE fine particle are shown below.

EFFECT OF CALCINATION
When TOSPEARL 120 is calcinated in air, the particle diameter changes, depending upon the calcinating temperature, and finally changes into silica. After carcionation, it maintains truly spherical configuration. Particle diameter change data of TOSPERAL 120 after calcination are shown below.

HANDLING AND SAFETY
♦ Wear dust mask, eye protection and protective gloved as required while handling the product.
♦ Use the product in a well ventilated area.
FOR INDUSTRIAL USE ONLY
It is the responsibility of the user to determine the suitability of any Momentive Performance Materials Japan product for any intended application. NEVER USE ANY MOMENTIVE PERFORMANCE MATERIALS JAPAN PRODUCT FOR IMPLANTATION OR INJECTION INTO THE HUMAN BODY. Specifications are available by contacting Momentive Performance Materials Japan. Typical property data values should not be used as specifications. Inasmuch as Momentive Performance Materials Japan LLC has no control over the use to which others may put the material, it does not guarantee that the same results as those described herein will be obtained. Each user of the material should make his own tests to determine the suitability of the material for his own particular use. Statements concerning possible or suggested uses of the materials described herein are not to be construed as constituting a license under any Momentive Performance Materials Japan patent covering use or as recommendations for use of such materials in the infringement of any patent. Material Safety Data Sheets are available upon request from Momentive Performance Materials Japan. The contents of this catalog are subject to change without notice. No part of this data may be reproduced without the prior approval of Momentive Performance Materials Japan.

STORAGE
♦ Store in a cool, dry place out of direct sunlight.
♦ Keep out of the reach of children.

PACKAGING
♦ 1kg plastic bottle available
♦ 10kg corrugated cardboard box available

Momentive Performance Materials Japan LLC
http://www.momentive.com

Technical Answer Center (Japan): Phone: +81-276-20-6182  FAX: +81-276-31-6259
Tokyo Head Office: Phone: +81-3-5544-3111  FAX: +81-3-5544-3122
TOSPEARL 2000B is a silicone micro resin for use as an additive to improve the performance of plastics, rubbers, paints, etc. In addition to providing the specific characteristics of silicones, such as water repellency and lubricity, TOSPEARL 2000B has a lower specific gravity than conventional inorganic fine powders and also has excellent heat resistance as compared with conventional organic fine powders.

KEY FEATURES
- Excellent water repellency
- Excellent lubricity (light lubrication)
- Lower specific gravity than inorganic fine powder
- Superior to organic fine particles in heat resistance
- Insoluble in organic solvents
- Low cohesiveness
- No melt even if heated to 900°C
- Upon calcination, gives truly spherical silica fine particles
- When charged negatively, amount electrified is large

APPLICATIONS
- Rubber Industry: Improvement in wear resistance, modification of slip properties of rubber surfaces
- Paints and Ink: Clarification of color tone, luster control, blocking prevention, wear resistance improvement
- Synthetic Resin: Increasing wear resistance of synthetic resins such as epoxy, acrylic, polyester, and ABS; blocking prevention, slip property improvement, and maintenance of transparency of plastic films such as PE and PP
- Others: Improvement in dispersibility, flowability and aggregation prevention of pigments and ceramic particles
TYPICAL PROPERTY DATA

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Truly spherical, fine white particle</td>
</tr>
<tr>
<td>Mean particle diameter (μm)</td>
<td>6.0</td>
</tr>
<tr>
<td>pH*</td>
<td>7.0</td>
</tr>
<tr>
<td>Weight loss (250°C, 30min) (%)</td>
<td>0.7</td>
</tr>
<tr>
<td>True specific gravity (25°C)</td>
<td>1.32</td>
</tr>
</tbody>
</table>

Note: *2% dispersed in a solution of Methanol/Water=1/1

Typical property data values should not be used as specifications.

ELECTRON MICROGRAPH

HANDLING AND SAFETY

♦ Wear dust mask, eye protection and protective gloved as required while handling the product.
♦ Use the product in a well ventilated area.

STORAGE

♦ Store in a cool, dry place out of direct sunlight.
♦ Keep out of the reach of the children.
PACKAGING

♦ 1kg plastic bottle
♦ 10kg corrugated cardboard box available

FOR INDUSTRIAL USE ONLY

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