## JIS Z 8901 试验粉尘列表

JIS 粉尘是依据 JIS（Japanese Industrial Standard，即日本工业标准）生产的试验粉尘，常被用于一些日系产品的检测。

本公司可为广大国内用户提供日本进口的下述检测杂质，包括 JIS Z 8901 的试验粉尘和玻璃珠产品；请在与我们联系的时候描述清楚您需要的是下面哪种产品：

# JIS Z 8901

***Classification**

| Class | Material used | Median * diameter ( μm ) | Particle density ( g/cm3 ) | Chemical composition % ( mass ) |
|---|---|---|---|---|
| Class 1<br>Class 2<br>Class 3 | Quartz sand | 185 to 200<br>27 to 31<br>6.6 to 8.6 | 2.6 to 2.7 | SiO2 95min<br>Fe2O3, Al2O3,TiO2<br>MgO,Ign.loss } 5max |
| Class 4<br>Class 9 | Talc | 7.2 to 9.2<br>4.0 to 5.0 | 2.7 to 2.9 | SiO2 ••• 60 to 63, Al2O3 ••• 0 to 3, MgO ••• 30 to 34<br>Fe2O3 ••• 0 to 3, CaO ••• 0 to 2, Ign.loss ••• 3 to 7 |
| Class 5<br>Class 10 | Fly ash | 13 to 17<br>4.8 to 5.7 | 1.95 min | SiO2Åc45min<br>Ign.lossÅc5max |
| Class 7<br>Class 8<br>Class 11 | **<br>KANTO<br>(Japanese) loam | 27 to 31<br>6.6 to 8.6<br>1.6 to 2.3 | 2.9 to 3.1 | SiO2 ••• 34 to 40, Al2O3 ••• 26 to 32, MgO ••• 0 to 7<br>Fe2O3 ••• 17 to 23, CaO ••• 0 to 3, Ign.loss ••• 0 to 4 |
| Class 12 | Carbon black | Particle size range ••• 0.03 to 0.20 μm<br>Absorbed amount of DBP ••• 25 to 34 ml/100g<br>Adsorbed amount of iodine ••• 22 to 30 mg/g | | |
| Class 16<br>Class 17 | Calcium-carbonate (heavy) | 3.6 to 4.6<br>1.9 to 2.4 | 2.7 to 2.8 | CaO ••• 54 to 56, SiO2 ••• 0 to 3, Ign.loss ••• 42 to 45<br>MgO ••• 0 to 3, Fe2O3 ••• 0 to 1 |

* Particle size distributions are defined by JIS Z 8901.

** Sintered at 800°C, 2hours.

Note :1) Class15 Mixed powder is distributed by Japan Air Cleaning Association and contains 72% of Class8, 23% of Class12 and 5% of cotton linter.

2) Class13 and Class 14 are now absent ones.

***Particle size distribution of Test Powders 1**

**Particle size distribution of Class 1, Class 2 and Class 3**
( Quartz sand )

| Particle size μm | Oversize(on mass basis)% | | |
|---|---|---|---|
| | Class 1 | Class 2 | Class 3 |
| 5 | - | 88±5 | 61±3 |
| 10 | - | 76±3 | 43±3 |
| 20 | - | 62±3 | 27±3 |
| 30 | - | 50±3 | 15±3 |
| 40 | - | 39±3 | 9±3 |

**Particle size distribution of Class 4 and Class 9**
( Talc )

| Particle size μm | Oversize(on mass basis)% | |
|---|---|---|
| | Class 4 | Class 9 |
| 2 | - | 79±5 |
| 4 | - | 55±5 |
| 5 | 69±5 | - |
| 8 | - | 23±5 |
| 10 | 40±5 | - |

| | | | |
|---|---|---|---|
| 45 | 99 min. | - | - |
| 75 | 90±3 | 20max. | 3max. |
| 106 | 80±3 | - | - |
| 150 | 65±3 | - | - |
| 212 | 45±3 | - | - |
| 300 | 1max. | - | - |

| | | |
|---|---|---|
| 16 | - | 6±3 |
| 20 | 12±5 | - |
| 30 | - | - |
| 40 | 3±3 | - |
| 75 | 1max | - |

**Particle size distribution of Class 5 and Class 10**

( Fly ash )

| Particle size μm | Oversize(on mass basis)% | |
|---|---|---|
| | Class 5 | Class 10 |
| 2 | - | 82±5 |
| 4 | - | 60±3 |
| 5 | 84±5 | - |
| 8 | - | 22±5 |
| 10 | 60±5 | - |
| 16 | - | 3±3 |
| 20 | 32±5 | - |
| 30 | 15±3 | - |
| 40 | 8±3 | - |
| 106 | 1max. | - |

**Particle size distribution of Class 7, Class 8 and Class 11**

( KNATO(Japanese) loam )

| Particle size μm | Oversize(on mass basis)% | | |
|---|---|---|---|
| | Class 7 | Class 8 | Class 11 |
| 1 | - | - | 65±3 |
| 2 | - | - | 50±5 |
| 4 | - | - | 22±3 |
| 5 | 88±5 | 61±5 | - |
| 6 | - | - | 8±3 |
| 5 | - | - | 3±3 |
| 10 | 76±3 | 43±3 | - |
| 20 | 62±3 | 27±3 | - |
| 30 | 50±3 | 15±3 | - |
| 40 | 39±3 | 9±3 | - |
| 75 | 20max. | 3max. | - |

**Class 12 Particle size range**

( Carbon black )

| |
|---|
| 0.03~0.20μm |

**Particle size distribution of Class 16 and Class 17**

( Calcium carbonate( heavy ))

| Particle size μm | Oversize(on mass basis)% | |
|---|---|---|
| | Class 16 | Class 17 |
| 1 | - | 80±5 |
| 2 | 76±5 | 54±5 |
| 4 | - | 18±5 |
| 5 | 40±5 | - |
| 8 | - | 4±3 |
| 10 | 10±5 | - |
| 16 | - | 1max. |
| 20 | 1max. | - |

-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-

**Glass beads GBL type**

Material used : Soda lime-silicate glass
Particle density : 2.1 to 2.5 g/cm3
Refractive index : 1.51 to 1.53
Particle size distribution ( Unit :µm ) ( % mass basis )

| Class | Particle size in case of 90% oversize | Particle size in case of 50% oversize | Particle size in case of 10% oversize |
|---|---|---|---|
| GBL-30 | 26 min. | 30 ± 1.0 | 34 max. |
| GBL-40 | 37 min. | 40 ± 1.0 | 45 max. |
| GBL-60 | 55 min. | 59 ± 1.0 | 63 max. |
| GBL-100 | 95 min. | 100 ± 1.0 | 105 max. |

**Glass beads GBM type**

Material used : Barium-titanate glass
Particle density : 4.0 to 4.2 g/cm3
Refractive index : 1.92 to 1.94
Particle size distribution ( Unit :µm ) ( % mass basis )

| Class | Particle size in case of 90% oversize | Particle size in case of 50% oversize | Particle size in case of 10% oversize |
|---|---|---|---|
| GBM-20 | 18 min. | 22 ± 1.0 | 26 max. |
| GBM-30 | 26 min. | 30 ± 1.0 | 34 max. |
| GBM-40 | 37 min. | 40 ± 1.0 | 45 max. |

**White fused alu mina**

Material used : Al2O3 99% min.
Particle density : 3.9 to 4.0 g/cm3
Particle size distribution ( Unit :µm ) ( % mass basis )

| Class | Particle size in case of 94% oversize | Particle size in case of 50% oversize | Particle size in case of 3% oversize |
|---|---|---|---|
| No.1 | 0.8 min. | 2 ± 0.5 | 5 max. |
| No.2 | 2.0 min. | 4 ± 0.5 | 11 max. |
| No.3 | 4.5 min. | 8 ± 0.6 | 20 max. |
| No.4 | 9.0 min. | 14 ± 1 | 31 max. |
| No.5 | 20 min. | 30 ± 2 | 58 max. |
| No.6 | 40 min. | 57 ± 3 | 103 max. |