ARAT HEAVY ELECTRICALS LIMITED
ECTROPORCELAINS DIVISION
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SPECIFICATIONS FOR RAW MATERIALS

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FELCITE POWDER

1. General : This Specification governs the requirements of Felcite powder.

2. Application : To serve as one of the constituents in the manufacture of porcelain body mass.

3. Particle Size : Powder

   1. Residue over 1000 µm sieve shall be less than 1.5 %.

   2. Below 150 µm sieve shall be between 50% to 75%.

4. Freedom from Defects : Shall be free from foreign materials. Free Iron in powder shall not exceed 0.01%.

5. Chemical Composition : a) SiO_2 .... 75.5 ± 2.5 %

   b) Al_2O_3 .... 15.0 ± 1.5 %

   c) Fe_2O_3 .... Less than 1.5 %

   d) KNaO .... 8.0 ± 1.0 %

   e) L.O.I..... Less than 1.0 %

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SERICITE POWDER

1. General : This Specification governs the requirements of Sericite powder.

2. Application : To serve as one of the constituents in the manufacture of porcelain body mass.

3. Particle Size : Powder

   1. Residue over 1000 µm sieve shall be less than 1.0 %.

   2. Below 150 µm sieve shall be above 75%.

4. Freedom from Defects : Shall be free from foreign materials. Free Iron in powder shall not exceed 0.01%.

5. Chemical Composition : a) SiO_2 .... 50.0 ± 5.0 %

   b) Al_2O_3 .... 32.5 ± 2.5 %

   c) Fe_2O_3 .... Less than 1.0 %

   d) KNaO .... 8.0 ± 1.0 %

   e) L.O.I..... Less than 5.0 %

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L.A.PYROPHYLLITE POWDER

1. General : This Specification governs the requirements of L.A.Pyrophyllite.

2. Application : To serve as one of the constituents in the manufacture of porcelain body mass.

3. Particle Size : Powder

   1. Residue over 1000 µm sieve shall be less than 0.2 %.

   2. Below 150 µm sieve shall be above 80%.

4. Freedom from Defects : Shall be free from foreign materials. Free Iron in powder shall not exceed 0.01%.

5. Chemical Composition : a) SiO_2 .... 63.5 ± 3.0 %

   b) Al_2O_3 .... 28.0 ± 2.0 %

   c) Fe_2O_3 .... Less than 1.0 %

   d) KNaO .... Less than 1.5 %

   e) L.O.I..... 4.5 ± 1.5 %

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TALC

1. General : This Specification governs the requirements of Talc Powder.

2. Application : To serve as one of the constituents in the manufacture of alumina body and Ceramic glaze.

3. Form : It should be supplied in powder form and should pass through 150 µm sieve. (Data for information only)

4. Chemical Composition :
   a) SiO_2 .... 61.0 ± 2.0 %
   b) MgO .... 30.0 ± 2.0 %
   c) CaO .... Less than 6.0 %
   d) Fe_2O_3 .... Less than 3.0 %
   e) Al_2O_3 .... Less than 2.0 %
   f) L.O.I .... 4.0 ± 2.0 %

5. Moisture Content : Nil

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DOLOMITE POWDER

1. General : This Specification governs the requirements of Dolomite Powder.

2. Application : To serve as one of the constituents in the Ceramic glaze.

3. Form : It should be supplied in powder form and should pass through 150 µm sieve. (Data for information only)

4. Chemical Composition :
   a) CaO .... 30 ± 2.0 %
   b) MgO .... 20 ± 2.0 %
   c) Fe_2O_3 .... Less than 2 %
   d) L.O.I..... 43.5 ± 3.5 %

5. Moisture Content : Nil

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CALCITE POWDER

1. General : This Specification governs the requirements of Calcite Powder.

2. Application : To serve as one of the constituents in the Ceramic glaze.

3. Form : It should be supplied in powder form and should pass through 150 µm sieve. (Data for information only)

5. Chemical Composition : a) CaO .... 52 ± 2.5 %

   b) Fe_2O_3 .... Less than 2 %

   c) L.O.I..... Less than 50.0 %

6. Moisture Content : Nil

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