



BHARAT HEAVY ELECTRICAL LIMITED
ELECTRO PORCELAINS DIVISION
BANGALORE-560012

SPEC NO. EPD/LAB/2015-16/001 DT 28.07.2015

REQUIREMENT OF Blender for Ceramic powders

1) Purpose:

- i) To blend a non-homogeneous powder and obtain a homogeneous powder
- ii) To blend more than one material and make a homogeneous mixture

- 2. Weight of powder: 25 Tons with approx. powder density of 2.4gm/cc
- 3. Opening on two sides. Also to be suggested by supplier for easy loading and unloading.
- 4. Suitable thickness to be suggested. Any readily available design can be suggested
- 5. 15-20 rpm
- 6. Suitable mechanical breakers inside for effective blending of dry powders and motor gear capacity to be mentioned
- 7. Vacuum evacuation method to be suggested if possible
- 8. Material used for blending will be 1) dry and 2) max 10% moisture (2 types of powders)
- 9. Material is non corrosive and inert
- 10. Inside of the blender should be lined with suitable material to prevent iron contamination.

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We are manufacturing HVDC insulators of 420 kN since 2009. One of the ingredients of the composition is SERICITE. This material is essential for good strength and enhancing sintering range. Alkali is an ingredient of the body composition. This is obtained from Feldspar,pyrophylliteandSericite. . As soda alkali is detrimental to body composition due to the ion mobility we need to supplement with potash alkali of which Sericite is rich.

However Sericite is very much heterogeneous in its occurrence,meaning, the properties vary enormously even within the lot, apart from lot to lot. So it becomes very difficult to control the final properties like strength and porosity due to non-uniformity of the material. In order to obtain a uniform material, at least within a lot, it is suggested to blend the material for each lot so as to get uniform property.

As not much is known on the specification of the blending machine and the suppliers within and outside India, it is proposed to release newspaper advertisement for EOI.

Already HR is going for an advertisement for CPBG. So no extra expenditure is involved

We wish to include our EOI in the same.

For approval please.

(R Subramanian)

Sr DGM/Cer lab

GM/EPD