



Indian Minerals Yearbook 2017

(Part- III : Mineral Reviews)

56th Edition

MINOR MINERALS 30.10 FULLER'S EARTH

(FINAL RELEASE)

**GOVERNMENT OF INDIA
MINISTRY OF MINES
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30-10 Fuller's Earth

Fuller's earth, like bentonite, is also known as 'bleaching clay' because of its inherent bleaching properties. Fuller's earth is non-plastic clay that can be used to decolourise, filter and purify animal, mineral & vegetable oils and greases. It has great commercial importance like bentonite. Bentonite is a swelling-type clay but fuller's earth is a non-swelling-type clay. This property difference is because of their chemical composition. Bentonite contains sodium, whereas fuller's earth contains calcium. Calcium bentonite, more commonly called fuller's earth, can be converted into sodium bentonite by cation exchange process or acid activation.

RESOURCES

The total reserves/resources of fuller's earth in India as on 1.4.2015 as per NMI database,

based on UNFC system have been estimated at 261.38 million tonnes. Out of these, only 3.94 million tonnes are placed under 'Reserves' category while remaining 257.4 million tonnes (98.49%) are placed under 'Resources' category. About 74% of the total resources are located in Rajasthan. The Remaining resources are in Telangana (10%), Arunachal Pradesh (8%), Assam (7%), and negligible quantity in Karnataka and Madhya Pradesh. The statewise reserves/resources of fuller's earth are given in Table-1.

PRODUCTION

As per Govt. of India Notification S.O. 423(E) dated 10th February 2015, 'fuller's earth' has been declared as 'Minor Mineral', hence the production data is not available with IBM.

Table – 1: Reserves/Resources of Fuller's Earth as on 1.4.2015 (By States)

(In tonnes)

Grade/State	Reserves		Remaining Resources				Total Resources (A+B)
	Proved STD111	Total (A)	Pre-feasibility STD222	Indicated STD332	Inferred STD333	Total (B)	
All India : Total	3941000	3941000	58200	912340	256467419	257437959	261378959
Unclassified Grade : Total	3941000	3941000	58200	912340	256467419	257437959	261378959
By States							
Arunachal Pradesh	–	–	–	10700	20000000	20010700	20010700
Assam	–	–	–	–	18860000	18860000	18860000
Karnataka	–	–	58200	551640	1557156	2166996	2166996
Madhya Pradesh	–	–	–	–	117200	117200	117200
Rajasthan	3941000	3941000	–	350000	190409080	190759080	194700080
Telangana	–	–	–	–	25523983	25523983	25523983

Figures rounded off

INDUSTRY

Rajasthan is principal producer of fuller's earth where most of the mines as well as industries producing various products of fuller's earth are located. Barmer, Bikaner and Jaisalmer are the major districts. Andhra Pradesh and Telangana are the other states from where fuller's earth deposits are located. Bajaj Earths Pvt. Ltd., Mumbai and Prakash Chemicals, Medak are the renowned industries trading fuller's earth and related products.

USES

Fuller's earth is used to decolourise, deodorise, dehydrate and neutralise various minerals, vegetable/animal oils, etc. It is also used in the manufacture of No Carbon Required (NCR) papers. Of late, the growth in consumption in these sectors has been

affected because of the advent of more sophisticated techniques in refining and due to availability of effective substitutes like activated bauxite and magnesium silicate. Fuller's earth is generally used in Fertilizer Industry as a carrier. In animal feed, fuller's earth is used as binders for pelletised feeds, carriers of supplement free flowing additives for feed in flour and lubricants to reduce dye friction. Consumption, however, is expected to rise in other unconventional uses as absorbent, for cleaning oil spillage on factory floors; as carrier for insecticides, fungicides and as a mineral filler & extender.

WORLD SCENARIO

World resources of clays including fuller's earth are quite large, hence country specific data is not available. USA is the major producer. Other major producers are Spain, Mexico and Senegal.