

2021-2022

GOVERNMENT DEGREE COLLEGE, LUXETTIPET
A FIELD TRIP TO FLY ASH BRICKS INDUSTRY
SUMMARY REPORT

AIM: To study about preparation of fly ash bricks and its importance towards their usage in household & commercial purpose.

OBJECTIVE : To bring awareness in the preparation and cost effectiveness of Fly ash bricks industry.

A BRIEF REPORT OF THE FIELD TRIP:

Fly ash brick (FAB) is a building material, specifically masonry units, containing class C or class F fly ash and water. Compressed at 28 MPa (272 atm) and cured for 24 hours in a 66 °C steam bath, then toughened with an air entrainment agent, the bricks can last for more than 100 freeze-thaw cycles. Owing to the high concentration of calcium oxide in class C fly ash, the brick is described as "self-cementing". The manufacturing method saves energy, reduces mercury pollution in the environment, and often costs 20% less than traditional clay brick manufacturing.

The strength of fly ash brick manufactured with the above compositions is ranges between 7.5 MPa and 10 MPa Fly ash bricks are lighter and stronger than clay bricks.

Main ingredients include fly ash, water, quicklime or lime sludge, cement, aluminum powder and gypsum. Autoclaving increases the hardness of the block by promoting quick curing of the cement. Gypsum acts as a long term strength gainer. The chemical reaction due to the aluminum paste provides AAC its distinct porous structure, lightness, and insulating properties. The aforementioned properties set it apart from other lightweight concrete materials. The finished product is a lighter block, less than 40% the weight of conventional Bricks, while providing the similar strengths. The specific gravity stays around 0.6 to 0.65¹ Using these blocks in buildings reduces the dead load, allowing one to save around 30 to 35%¹ of structural steel, and concrete.

OUTCOMES OF THE FIELD TRIP :

Students knew about different types of preparation methods of fly ash bricks which will be helpful to the employment in private sector. This gives a brief idea about preparation, materials involved and its application in various fields.

GOVERNMENT DEGREE COLLEGE, LUXETTIPET
FIELD TRIP TO Muthyampet near to Luxettipet
DATE: 26.11.2021



FLY ASH BRICKS PREPARATION - EXPLANATION



GOVERNMENT DEGREE COLLEGE, LUXETTIPET
FEEDBACK REPORT

Date: 29-11-2021

Name of the student	K. Manika
Course and Academic year	BZC III rd year
Name of the programme	field trip
Questionnaire for the programme	
1. Are you satisfied by the programme	yes
2. What did you learn from the Programme	we learn about material included in brick making.
3. Is it useful to improve your skills	yes
4. Can you apply this in generating self employment	yes
4. Any suggestions by you regarding the programme	NO

K. Manika
SIGNATURE
OF THE STUDENT

[Signature]
PROGRAMME COORDINATOR

[Signature]
PRINCIPAL
Principal
Govt. Degree College
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