



SDI Review Form 1.6

Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	2014_BJAST_10986
Title of the Manuscript:	THE MECHANICAL AND PHYSICAL CHARACTERISTICS OF STEEL DUST BRICKS
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	➤ The authors did not justify the use of bentonite. ➤ Line 80: the authors should mention the nature of the used bentonite (calcium or sodium), its origin and its chemical analysis. ➤ Line 82: The authors should justify the determination of water content value of 0.268g. ➤ Line 85: Before being stored in air, when should specimens be unmolded. ➤ Does the tests carried out according to any standards or/ and recommendations? if yes, they should be cited. ➤ The figures can be better drawn, larger and well framed. ➤ Why the results of sample G (the witness sample), are not represented on the figures to compare? ➤ In the results and discussion section, for the cold crushing strength, the refractoriness, and the thermal shock resistance: The authors give the results and make conclusions, without figures or tables to track the evolution of these characteristics depending on the bentonite content, or other parameters.	The standard procedure for each test done is described in the methodology. Sample G is in loose form and could not be rammed without the binder. It is thus deleted from Table 2. The results of cold crushing strength, refractoriness and thermal shock resistance of the brick samples are not presented in tabular or graphical form because the samples remain rigid and compact after the tests are carried out without fracture within the capacity limits of the tests facilities. This observation is stated under results and discussion section. The issue relating to line 47; the SEM and /or EDS micrographs of the samples discussed in the introduction are not our findings. We are only reporting the results of the study done by the author and therefore there is no need to include these



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		in the introduction section. For issue relating to line 80; if we are privileged to use XRD to characterise the samples, it would have been easy to know the kind of chemical reactions that occurred between the steel dust and bentonite at the fired and sintering temperatures used. For line 131; the symbol Fd is usual notation and correlate well with the full meaning and therefore retained. <u>Conclusion</u> All other comments by both reviewers have been addressed accordingly and these are shown in red marks in the manuscript.
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<u>Minor</u> REVISION comments	➤ The sentences are too long, they should be divided by some commas. ➤ Line 28: etc. not e.t.c. ➤ Line 63-65 the sentence is ambiguous, it can be better drafted. ➤ Ligne 83 : molded not moulded. ➤ Line 89: Sample bricks of 6 x 3.65cm² not 6 x 3.65cm. ➤ Line 115 and 131: Equations 1 and 3 are not clear. ➤ In part conclusion, give once again the composition of mixture B.	
<u>Optional/General</u> comments	➤ Line 47: the addition of the SEM and / or EDS (if exist), will support and enhance the paper. ➤ Line 80: Is there any known chemical reaction between the used bentonite and the EAF particles? ➤ Line 131: Fd should be replaced by Df, unless it is a universal notation.	