

⊘ Not Available for Download

★ Add Paper to My Library

Share: [f](#) [t](#) [✉](#) [🔗](#)

## Sensitivity Analysis of Furan-No-Bake Sand Mold System Parameters

*The IUP Journal of Mechanical Engineering, Vol. XII, No. 4, November 2019, pp. 22-29*

Posted: 25 Mar 2021

M.V. Sheladiya ([https://papers.ssrn.com/sol3/cf\\_dev/AbsByAuth.cfm?per\\_id=2575432](https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=2575432))  
Atmiya Institute of Technology and Science

Shailee G Acharya ([https://papers.ssrn.com/sol3/cf\\_dev/AbsByAuth.cfm?per\\_id=3176613](https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=3176613))  
SVIT Vasad

Jaimin G Pandya ([https://papers.ssrn.com/sol3/cf\\_dev/AbsByAuth.cfm?per\\_id=4599948](https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=4599948))  
AITS, Rajkot

Ghanshyam D Acharya ([https://papers.ssrn.com/sol3/cf\\_dev/AbsByAuth.cfm?per\\_id=3176640](https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=3176640))  
AITS, Rajkot

Date Written: March 2, 2019

### Abstract

Furan-No-Bake (FNB) sand mold system is a technology in high demand due to its good surface finish, dimensional stability and shakeout characteristics. It is a very tedious process to characterize the quality of FNB cast product due to the complex existence of parameters that affect the quality of the motor body casted product. In this paper, a mathematical model has been developed based on the experimental data, and sensitivity analysis was performed to identify and compare the influence of the casting parameters such as resin percentage, catalyst percentage and temperature of sand on the compressive strength of the mold and to know the parameters that must be carefully controlled.

**Keywords:** Furan-No-Bake (FNB), Sensitivity analysis, Compressive strength, Resin, Catalyst

[Suggested Citation](#) >

[Show Contact Information](#) >

⊘ Not Available for Download

## 0 References

## 0 Citations

Do you have negative results from your research you'd like to share?

[Submit Negative Results \(https://www.ssrn.com/index.cfm/en/Negative-Results/\)](https://www.ssrn.com/index.cfm/en/Negative-Results/)

## Paper statistics

ABSTRACT VIEWS

69

PlumX Metrics



([https://plu.mx/ssrn/a/?ssrn\\_id=3796050](https://plu.mx/ssrn/a/?ssrn_id=3796050))  
**Related eJournals**

Materials Engineering eJournal ([https://papers.ssrn.com/sol3/JELJOUR\\_Results.cfm?form\\_name=journalBrowse&journal\\_id=3069284](https://papers.ssrn.com/sol3/JELJOUR_Results.cfm?form_name=journalBrowse&journal_id=3069284))

Follow



Chemical Engineering eJournal ([https://papers.ssrn.com/sol3/JELJOUR\\_Results.cfm?form\\_name=journalBrowse&journal\\_id=3068952](https://papers.ssrn.com/sol3/JELJOUR_Results.cfm?form_name=journalBrowse&journal_id=3068952))

Follow



Feedback

Submit a Paper > (<https://hq.ssrn.com/submissions/CreateNewAbstract.cfm>)

SSRN Quick Links

SSRN Rankings

About SSRN

**f** (<https://www.facebook.com/SSRNcommunity/>)

**in** ([https://www.linkedin.com/company/493409?](https://www.linkedin.com/company/493409?trk=tyah&trkInfo=clickedVertical%3Acompany%2CentityType%3AentityHistoryName%2CclickedEntityId%3Acompany_4934)

[trk=tyah&trkInfo=clickedVertical%3Acompany%2CentityType%3AentityHistoryName%2CclickedEntityId%3Acompany\\_4934](https://www.linkedin.com/company/493409?trk=tyah&trkInfo=clickedVertical%3Acompany%2CentityType%3AentityHistoryName%2CclickedEntityId%3Acompany_4934)

**t** (<https://twitter.com/SSRN>)

(<http://www.elsevier.com/>)

Copyright (<https://www.ssrn.com/index.cfm/en/dmca-notice-policy/>) Terms and Conditions (<https://www.ssrn.com/index.cfm/en/terms-of-use/>)

Privacy Policy (<https://www.elsevier.com/legal/privacy-policy>)

All content on this site: Copyright © 2023 Elsevier Inc., its licensors, and contributors. All rights are reserved, including those for text and data mining, AI training, and similar technologies. For all open access content, the Creative Commons licensing terms apply.

We use cookies to help provide and enhance our service and tailor content.

To learn more, visit [Cookie Settings](#).



(<http://www.relx.com/>)

(<https://papers.ssrn.com/sol3/updateInformationLog.cfm?process=true>)