

Review Form 1.7

Journal Name:	Current Journal of Applied Science and Technology
Manuscript Number:	Ms_CJAST_111497
Title of the Manuscript:	Surface Thermal Failure Prediction for gears in plastics materials and their composites: case of acetal Duracon and polyethylene HDPE with 40% birch wood fiber composite
Type of the Article	Original Research Article

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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)
<p>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>Yes They have evaluated toque-speed characteristics of the plastic and composite gear using MATLAB.</p> <p>No, it should be attractive, like: Investigation of Surface Thermal Failure Behaviour of Plastic and Composite Gears</p> <p>Yes. It is required to add a sentence of comparative assessment of plastic and composite gear behaviour in the last of the abstract.</p> <p>Yes</p> <p>Yes</p> <p>No. Correct format of reference and other suggested references are mentioned below:</p> <p>Kindly strictly follow the following format of reference: Forneau E, Bovet D. Recherches sur l'action sympathicolytique d'un nouveau dérivé du dioxane. Arch Int Pharmacodyn. 1933;46:178-91. https://doi.org/10.1016/j.ijimpeng.2022.104201</p> <p>« Surname First later of name of author1, Surname First later of name of author2, Surname First later of name of last author. Title of the paper. Journal Name, Year of publication, Volume: Page no. from-to. Doi:</p> <p>Cite the following papers in your manuscript related to composite materials and fault in gear.</p> <ol style="list-style-type: none"> Patel M, and Sahu SK, "Effect of SiC Particulate Content on the Abrasive Wear Parameters of AA5052 Matrix," Recent Advances in Mechanical Engineering: Select Proceedings of STAAAR 2022, B. Sethuraman, P. Jain, and M. Gupta, eds., Springer Nature Singapore, Singapore, 2023: pp. 577–587. https://doi.org/10.1007/978-981-99-2349-6_52 Patel M, Singh MK, Sahu SK, "Abrasive Wear Behaviour of Sand Cast B4C Particulate Reinforced AA5052 Metal Matrix Composite", in: B. Deepak, D.R.K. Parhi, P.C. Jena (Eds.), Innov. Prod. Des. Intell. Manuf. Syst. Sel. Proc. ICIPDIMS 2019, Springer Singapore, Rourkela, 2020: pp. 359–369. https://doi.org/10.1007/978-981-15-2696-1_35. Patel M, Sahu SK, Singh MK, and Sahu DP, "Investigation of Tribological Properties of Stir Cast AA5052/B4C MMC under Different Loads," Jurnal Tribolgi, 2022, 34: 69–86. <p>Following additional corrections are required in the manuscript:</p> <ol style="list-style-type: none"> Lots of symbol and abbreviations used in the manuscript. Hence, provide a detailed list of abbreviations before Introduction section. In abstract you have used VDI, HDPE, and Cω. Write their extended form first and mention the abbreviations in small bracket. Like, high density polyethylene (HDPE). Reference nos. are not in sequence, started with [2]. Kindly correct the reference no. in sequence. 	
<p>7. Additional Comments</p>		

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	<ol style="list-style-type: none"> 4. Start the introduction with definition of composite material. You may prefer above suggested references [1-3]. 5. You have written literature as “Herba et al. [18] 2022”. Remove the year of publication and write as “Herba et al. [18]”. 6. In the last paragraph of introduction section, you have used many “we” term. Revise this paragraph by removing ‘we’ terms because it is inappropriate. 7. In the Step5 of the section 2, equations are in picture format, write it in equation format of Microsoft word and assign equation numbers. For multiplication you have used dot (.) symbol, kindly remove it. For decimal you have used comma (,) kindly replace it by dot (.) 8. Kindly provide the references at the end of Tables 1 and 2 titles from where you have collected material properties. In Table 1, you have used “Kg” for kilogram kindly replace it by “kg”. 9. Instead of “Table 2” you have written as “Tableau 2”, kindly correct it. 10. In Table 2, you have written “ou pas diametral”. Is this correct? 11. In Tables 3 and 4, you have provided a screenshot, kindly write it in word format and provide the reference of the source. 12. Figs. 2-7 are not your own generated figures, kindly provide the reference from where you have taken these figures. 13. Write the equation 2 in word equation format. 14. In many equation you have used dot (.) symbol for multiplication, kindly remove it no need to use. For decimal you have used comma (,) kindly replace it by dot (.) 15. Replace all Cw by C-ω. because these are denoting different parameters. 16. In Tables 5-10 you have used a comma (,) in all data, i.e. -0,3046. Kindly carefully check it, I think is decimal point. If it is decimal point then replace the comma (,) by dot (.) 17. Some place you have used “S/pn” and some places “s/pn”. Kindly use one nomenclature throughout the manuscript. 18. Many places you have missed to put subscript of some later. Kindly check it carefully. 19. In conclusion also include the comparison of the thermal failure behaviour of the HDPE40B composite gears and Duracon acetal gears. 	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>Carefully read the manuscript once and remove the typo and grammatical mistakes.</p>	
<p>Optional/General comments</p>		

PART 2:

	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)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

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<p>Department, University & Country</p>	<p>Indian Institute of Information Technology, India</p>