

Invention Disclouser Form

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Instructions:

This form is provided to help you organize your thoughts about your invention. There's nothing "magic" about it. Do whatever you need to do in order to explain your invention in such a way as to be clear to one who is not familiar with it.

- Be careful to describe what, specifically, makes your invention different from what has gone before. Avoid general statements that your invention is "better" – please specify why it is better, or what makes it better?

- If you use any unusual terms, or ordinary terms in an unusual way, explain them.

- In addition to describing all the parts, describe how the parts work together.

- Why did you do things the way you did them, and not some other way?

How else could You have accomplished the same end?

- In answering the questions, do not limit yourself to exactly the prototype you have in Front of you, or to the very best way you might think your invention might be built. Allow your imagination to run – how else might this invention work? How far would it Need to be changed before you say, "that's not my invention any more"? Are there less Desirable, but still useful, ways of making the invention work?

- It's as important to point out what is not part of your invention (that is, what is "old") as it Is to carefully explain what is new. Has the design, or part of the design, been used Before, even if for a different purpose? How else have people accomplished the same Function as your invention in the past?

- What are the possible problems? Under what circumstances might your invention not work? Are there critical parts, dimensions, ingredients?

- Drawings are always helpful, and if you are e-mailing this form you can include them Electronically in one of the standard graphic formats (PCX, GIF, JPG) or as a drawing File in AutoCAD DXF or DWG formats.

Note: The question with * should be answered and others are optional.

1. Name of inventor(s)*:

1) Prasanna Hingmire 2) Harshal Sainkar 3)

4) Guide: Gaurav Ahire

2. Address and Citizenship of the inventor(s)*:

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3. Title of the invention :

USING GLASSFIBER POLYMER BARS IN REINFORCED FOR IMPROVING TENSILE PROPERTIES

4. Problem solved by invention : describe the unmet need/problem in the current solutions and the problem that this invention solves.

5. Brief description of the invention *describe the invention in general terms: what does it do? And how does it do?

1) Improving the tensile properties of bars in reinforced concrete.

2) Using glass-fiber instead of normal steel bars.

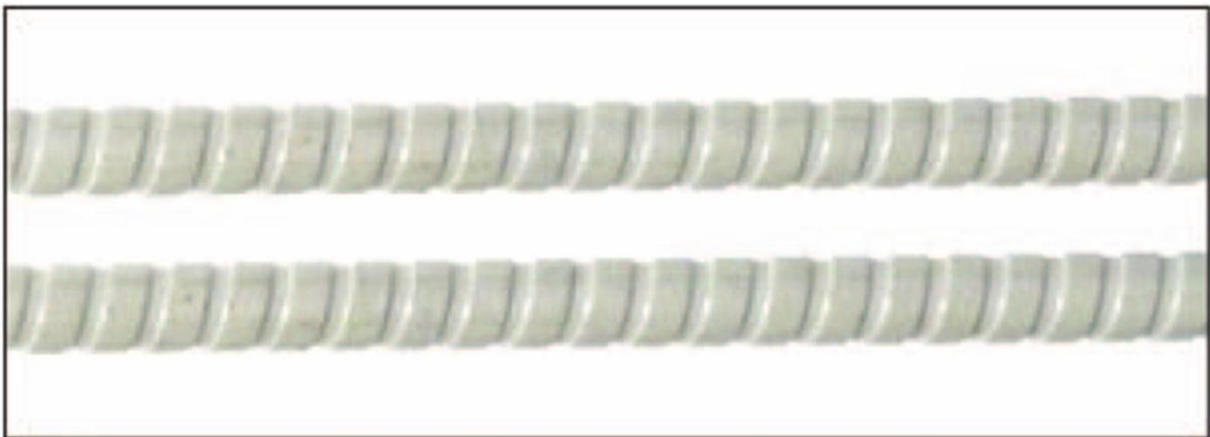
3) Reducing the use of steel bars .

6. Detail description of the invention :

This paper presents the test results of an experimental study to investigate the durability of newly developed glass fiber reinforced polymer bars. The main objective of this study is to investigate any degradation in the tensile properties of the glass fiber-reinforced polymer bars using accelerated aging methods. Glass fiber-reinforced polymer bars were embedded in concrete prisms and exposed to several environmental conditions for 6, 12, and 18 months.

The performance of the glass fiber-reinforced polymer bars was evaluated by conducting tensile tests on the bars extracted out from the concrete prisms after exposure to different conditions. In addition, scanning electron microscope was used to investigate the degradation mechanism of the bars. After 18 months of exposure, test results showed that both the tap water at 50_C and the alkaline solution at 50_C had the maximum harmful effect on the tensile strength of glass fiber-reinforced polymer bars. The two field conditions showed almost no degradation in the tensile properties of the tested bars

7. Diagrams / Figures:



GLASS-FIBER POLYMER BARS