

(54) Title of the invention : Analysis of the mechanical properties of concrete produced with red ceramic construction and demolition waste

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| <p>(51) International classification :C04B0041000000, C04B0018160000, C04B0033132000, C08K0005000000, A61K0033000000</p> <p>(86) International Application No :PCT//<br/>Filing Date :01/01/1900</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA<br/>Filing Date :NA</p> <p>(62) Divisional to Application Number :NA<br/>Filing Date :NA</p> | <p>(71)Name of Applicant :<br/><b>1)Dr. P.Maria Antony Sebastin Vimalan</b><br/>Address of Applicant :Assistant Professor, Department of Civil Engineering, St. Mother Theresa Engineering College, Thoothukudi, Tamilnadu Pin Code: 628102 -----</p> <p><b>2)Mrs. L.Lizzy Arputha Dorathy</b><br/><b>3)Mrs. S.Sathiya</b><br/><b>4)Ms. Aruna C</b><br/><b>5)Mr.M.Sadhasivam</b><br/><b>6)Jyothi lekshmi R</b><br/><b>7)Dr. A. N. Swaminathen</b><br/><b>8)Mrs. Geena.M.G</b><br/><b>9)Dr. S.Gopikumar</b><br/><b>10)Mrs. S.Mispa Brown</b><br/>Name of Applicant : NA<br/>Address of Applicant : NA</p> <p>(72)Name of Inventor :<br/><b>1)Dr. P.Maria Antony Sebastin Vimalan</b><br/>Address of Applicant :Assistant Professor, Department of Civil Engineering, St. Mother Theresa Engineering College, Thoothukudi, Tamilnadu Pin Code: 628102 -----</p> <p><b>2)Mrs. L.Lizzy Arputha Dorathy</b><br/>Address of Applicant :Assistant Professor, Department of Civil Engineering, PSN Engineering College, Melathediyoar, Tirunelveli -----</p> <p><b>3)Mrs. S.Sathiya</b><br/>Address of Applicant :Assistant Professor, Department of Civil Engineering, St. Mother Theresa Engineering College, Vagaikulam, Thoothukudi, Tamil Nadu 628102 -----</p> <p><b>4)Ms. Aruna C</b><br/>Address of Applicant :Research Scholar, Department of Civil Engineering, Annamalai University, Chidambaram -----</p> <p><b>5)Mr.M.Sadhasivam</b><br/>Address of Applicant :Assistant Professor, Department of Civil Engineering, JCT College of Engineering and Technology, Coimbatore - 641105 -----</p> <p><b>6)Jyothi lekshmi R</b><br/>Address of Applicant :Assistant Professor, Department of Civil Engineering, Adi Shankara Institute of Engineering and Technology, Kerala 683574 -----</p> <p><b>7)Dr. A. N. Swaminathen</b><br/>Address of Applicant :Associate Professor, Department of Civil Engineering, Adi Shankara Institute of Engineering and Technology, Kerala 683574 -----</p> <p><b>8)Mrs. Geena.M.G</b><br/>Address of Applicant :Assistant Professor, Department of Civil Engineering, Trichy Engineering College, Konali, Trichy -----</p> <p><b>9)Dr. S.Gopikumar</b><br/>Address of Applicant :Associate Professor, Department of Civil Engineering, SCAD College of Engineering and Technology, Cheranmahadevi, Tirunelveli -----</p> <p><b>10)Mrs. S.Mispa Brown</b><br/>Address of Applicant :HOD, Department of Civil Engineering, PSN Engineering College, Melathediyoar, Tirunelveli -----</p> |
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(57) Abstract :

[06] Long ago, many civilizations already used rubble or limestone as raw material for various applications in civil construction. Currently, it is perceived that there is a huge amount of waste and waste generation in buildings as a whole, and due to the environmental and economic problems facing the planet, it is necessary to invest in research and methods to reuse the main raw materials of civil construction in other conflicts, most of the time they are rejected in inappropriate places. Therefore, the aim of this work is to verify the mechanical strength of concrete made from coarse and fine aggregates from construction and demolition wastes of red ceramics and verify its potential applications. To carry out this analysis, a full theoretical foundation is necessary, starting from the concept of waste, the details of the recycling process and the experiments carried out by researchers, with the aim was to understand how the use of red ceramics affects the ultimate strength of concrete. Concrete has been found to have many potential applications with RCW aggregates (red ceramic waste) being used for structural purposes if prepared in appropriate proportions to achieve the level of resistance required for the particular application and the appropriate method is used. In this way, there is a material option that helps to sustainably supply a lot of growing branches while meeting technical, economic and environmental requirements. Accompanied Drawing [FIG. 1] [FIG. 2][FIG. 3] [FIG. 4] [FIG. 5]

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