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THE PATENT OFFICE

पेटेंट प्रमाणपत्र
PATENT CERTIFICATE
(Rule 74 of The Patents Rules)

क्रमांक : 044142843
SL No :



पेटेंट सं. / Patent No. : 401296
आवेदन सं. / Application No. : 202141025859
फाइल करने की तारीख / Date of Filing : 10/06/2021
पेटेंटी / Patentee : Vallurupalli Nageswara Rao Vignana Jyothi Institute of Engineering and Technology
आविष्कारक (जहां लागू हो) / Inventor(s) : 1.Dr .J. Suresh Kumar 2.Dr. M. S. Srinivasa Rao 3.SNS Sai Hari 4.Ch. Naveen Reddy 5.Ch. Vamshi Krishna 6.A.Vinay

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित FABRICATION OF POLYMER BASED NANO COMPOSITE ROOF SHEETS नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख जून 2021 के दसवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled FABRICATION OF POLYMER BASED NANO COMPOSITE ROOF SHEETS as disclosed in the above mentioned application for the term of 20 years from the 10th day of June 2021 in accordance with the provisions of the Patents Act,1970.



अनुदान की तारीख : 14/07/2022
Date of Grant :

पेटेंट नियंत्रक
Controller of Patent

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, जून 2023 के दसवें दिन को और उसके पश्चात प्रत्येक वर्ष में उसी दिन देय होगी।

Note. - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 10th day of June 2023 and on the same day in every year thereafter.



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Application Details

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APPLICANT NAME	Vallurupalli Nageswara Rao Vignana Jyothi Institute of Engineering and Technology
TITLE OF INVENTION	FABRICATION OF POLYMER BASED NANO COMPOSITE ROOF SHEETS
FIELD OF INVENTION	CHEMICAL
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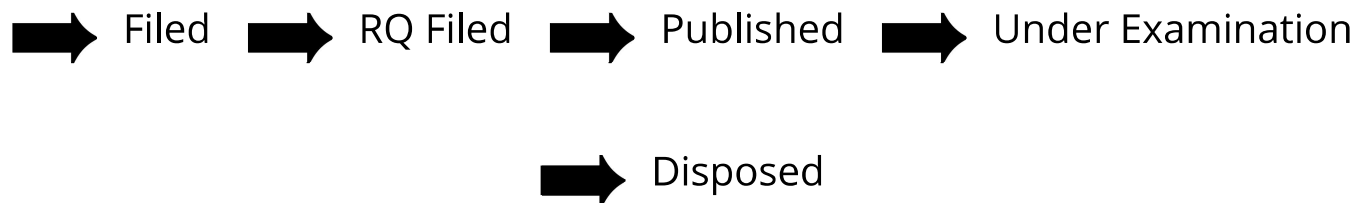
Application Status

APPLICATION STATUS

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[E-Register](#)

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(51) International classification	:B32B0005260000, C08J0005040000, C08K0005000000, B29C0070540000, C04B0035800000	(71)Name of Applicant : 1)T. Malyadri Address of Applicant :Assistant Professor, Mechanical Engineering Department, VNRVJIET, Bachupally, Hyderabad- 500090 Telangana India
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(57) Abstract :

The present disclosure relates to a relates to fiber reinforced roofing composites and more particularly to a polymer based fiber reinforced nano composite roofing sheet to reflect the heat, surface temperature and reduce the temperature of the inner space. SiO₂ and TiO₂ nanoparticles are mixed with the epoxy resin system to be used as the polymer matrix(101) of the roofing composite sheet which improves solar reflection, strength and lowers surface temperature of the composite. Multiple fibers woven sheet reinforcing materials are impregnated with the nanoparticles mixed epoxy resin and layed on top of another to form sandwich layer where first(102) a mineral fiber, second(103) a glass fiber and third(104) a synthetic fiber based reinforcing material form the outermost(102), second outermost(103) and the third outermost(104) layer from both side of the composite with center reinforcing material(105) of a natural fiber woven sheet. The composite is fabricated by vacuum hand lay technique

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