

rubbernews first

Vol. LXVIII • No.1 • January 2016 • www.allindiarubber.net • ₹100/-

COVER STORY

Extrusion Die Swell Simulation of Tire tread Compound using Phan Thien & Tanner (PTT) Model

In This Issue:

- Safety Sure Road to Quality & Prosperity
- Country Note on Guatemala







rubber^{India}

VOL. LXVIII • No. 1 • January 2016 • ₹ 100

Contents

Editor Ketan K. Shah

(JOD)

President Mohinder Gupta

(**)00**()

Editorial Committee Members D. J. Bharucha Prashanth B Niraj Thakkar Regional Chairmen

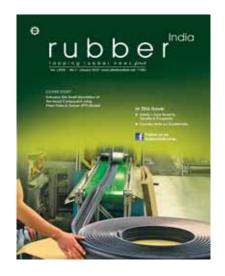
COOC)

Printed & Published by **R. G. Bhamare**

ALL INDIA RUBBER INDUSTRIES ASSOCIATION

601, Pramukh Plaza, 6th floor, 485, Cardinal Gracious Road, Chakala, Andheri (East), Mumbai - 400 099. Tel.:022-2839 2095 / 2107 Fax : 022-28229883 Email : secretary@allindiarubber.net rubberindia@allindiarubber.net

The Opinions expressed in this magazine do not necessarily reflect those of the editor, publisher or their agents.



9 President's Message

11 Editor's Note

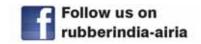
13 Secretary General Desk

14

All India Rubber Industries Association K. M. Philip Meritorious Scholarship

16

Airia invites nominations for rubber technology – innovation award 2014



18

Association News

NRC 2015: Kolkata - Post-Conference wrap-up



Risk Management & Industrial Safety by AIRIA WR – Pune Chapter Conducts



36

News and Notes



60 International Notes





Cover Story

Extrusion Die Swell Simulation of Tire tread Compound using Phan Thien & Tanner (PTT) Model



Tire manufacturing involves mixing of raw materials such as rubber, carbon black, and chemicals followed by shaping of different specific components that are assembled and cured. Some of the important components like tire tread and sidewalls are exclusively produced by extrusion process in which the molten polymer is conveyed by a ram or a screw and the melt is then forced through a shaping die in a continuous process.

86

Management Article

Safety – Sure Road to Quality & Prosperity



I remember a funny incident when I visited a vegetable oil refining plant to carry out a valuation of the property, which consisted of the land, building, plant & machinery. While inspecting the plant, I observed that the entire tiled floor was slippery because of the oil, making it difficult for me to walk on the floor. The maintenance engineer with me was walking comfortably,



since he was used to walking on such a slippery floor. I slipped twice but was saved miraculously as I grabbed and held on to one of the parts of the machinery.

90

Interview

Conference Question & Answer : Arup K Chandra Apollo Tyres



Apollo Tyres' head of global raw material and compound development reveals details of the company's research into polymer nano-filler interaction in tire tread compounds

92

Country Profile

Country Note on Guatemala



Brazil is South America's most influential country, an economic giant and one of the world's biggest democracies. Brazil is simultaneously South America's largest country (by both population and geographical size) as well as one of its most diverse and fascinating.

98

Focus



- Our Focus is to add SMEs in supply chain of high tech products & services to defense sector: Kalraj Mishra
- UP has maximum no. of sick MSME units in India followed by Maharashtra and Gujarat
- CBDT simplifies process of online rectification of incorrect TDS details filed in IT-Return
- Alibaba.com launches online platform - SMILE for Indian SMEs

102

Statistics



108 Notifications

1111 Events & Exhibitions *The Latest on Events, Exhibitions and*

113 Classified Advertisements

Conferences in the Rubber Industry