



# 橡胶工业

11  
2023



Xiangjiao Gongye  
*China Rubber Industry*

北京橡胶工业研究设计院有限公司 主办



广告

## Sipiol® 密封条涂料和Flocklok® 植绒表面处理剂

- 优异的耐候性、耐磨性和附着力；
- 防止橡胶密封磨损，便于玻璃滑动；
- 有助于降低噪音和提高驾乘舒适度。

Parker | Lord

ENGINEERING YOUR SUCCESS.





# 橡胶工业

Xiangjiao Gongye  
China Rubber Industry

第70卷第11期 (1953年创刊)

2023年11月25日出版

经国家科委批准出版

月刊 国内外发行

## 目 次

### 特约来稿

磁流变弹性体的性能研究 ..... 王 静, MUHAMMAD Wasim Asim, 危银涛 (845)

### 应用理论

有机粘土/天然胶乳纳米复合材料的多轴循环拉伸诱导结晶行为研究

..... 刘兵兵, 梁玉蓉, 任绒艇, 李子贤, 赵俊, 朱苗 (850)

高密度聚乙烯/氯磺化聚乙烯热塑性动态硫化弹性体的性能研究 ..... 张靖, 郑成 (857)

超高层建筑用有机硅密封胶的制备及其拉伸粘接性能的研究 ..... 孙娜 (862)

### 原材料·配方

BIBP反应副产物对CM/EPDM电缆绝缘层硫化胶绝缘性能的影响

..... 楚定一, 丁剑平, 熊康, 方跃胜, 刘运春 (868)

聚己内酯二醇/聚四氢呋喃聚醚二醇并用比对混炼型聚氨酯性能的影响

..... 董子辉, 李闯, 苏威铭, 刘锦春 (876)

### 产品·设计

新型橡胶柔性齿轮的制备及其结构和性能分析 ..... 童任远, 杨苑苒, 田嘉俊, 龚俊杰, 韦源源, 黄浩 (881)

### 工艺·设备

环烷基减二线馏分油生产环烷基橡胶增塑剂N4006的工艺研究 ..... 许海龙, 宋君辉, 焦祖凯, 张翠侦 (887)

粉状炭黑预备方式对湿法混炼胶料性能的影响 ..... 邱健, 郝小勇, 边慧光, 王禄银, 李利, 汪传生 (893)

轮胎阶梯式直压硫化内模具的结构强度研究 ..... 张莉彦, 史文忠, 靳晓哲, 谭晶, 焦志伟, 阎华, 杨卫民 (898)

斜平面轮胎活络模具中套汽室的硫化温度场的模拟分析 ..... 孙峰, 胡海明, 李林 (905)

### 测试·分析

轮胎阶梯式直压硫化内模具的疲劳寿命分析 ..... 杨卫民, 陈浩, 靳晓哲, 谭晶, 阎华, 焦志伟 (911)

### 综述·专论

压缩式封隔器胶筒的研究进展 ..... 马美琴, 陈岚, 柯俊 (917)



China Rubber Industry

( Xiangjiao Gongye )

Vol. 70, No. 11, November 2023

• Monthly •

## Contents

### Special Contribution

Study on Properties of Magnetorheological Elastomer ..... WANG Jing, MUHAMMAD Wasim Asim, WEI Yintao (845)

### Applied Theory

- Multi-axial Cyclic Tensile Induced Crystallization Behavior of Organic Clay/Natural Latex Nanocomposites ..... LIU Bingbing, LIANG Yurong, REN Rongting, LI Zixian, ZHAO Jun, ZHU Miao (850)  
Properties of HDPE/CSM Thermoplastic Dynamically Vulcanized Elastomer ..... ZHANG Jing, ZHENG Cheng (857)  
Preparation of Silicone Sealants for Super High-rise Building and Its Tensile Bonding Properties ..... SUN Na (862)

### Material • Compounding

- Effect of BIBP Reaction Byproducts on Insulation Properties of Vulcanizate for CM/EPDM Cable Insulation Layer ..... CHU Dingyi, DING Jianping, XIONG Kang, FANG Yuesheng, LIU Yunchun (868)  
Effect of PCL/PTMG Blending Ratios on Properties of MPU ..... DONG Zihui, LI Chuang, SU Weiming, LIU Jinchun (876)

### Product • Design

- Preparation of New Rubber Flexible Gear and Its Structural and Performance Analysis ..... TONG Renyuan, YANG Yuanran, TIAN Jiajun, GONG Junjie, WEI Yuanyuan, HUANG Hao (881)

### Technology • Equipment

- Study on Process of Producing Naphthenic Rubber Plasticizer N4006 from Naphthenic Second Vacuum Side-stream Oil ..... XU Hailong, SONG Junhui, JIAO Zukai, ZHANG Cuizhen (887)  
Effect of Advance Preparation Methods of Powdered Carbon Black on Properties of Wet Mixed Compounds ..... QIU Jian, HAO Xiaoyong, BIAN Huiguang, WANG Luyin, LI Li, WANG Chuansheng (893)  
Study on Structural Strength of Stepped Direct-pressure Vulcanization Inner Mold of Tire ..... ZHANG Liyan, SHI Wenzhong, JIN Xiaozhe, TAN Jing, JIAO Zhiwei, YAN Hua, YANG Weimin (898)  
Simulation Analysis of Vulcanization Temperature Field of Middle Sleeve Steam Chamber of Inclined Plane Tire Segment Mold ..... SUN Feng, HU Haiming, LI Lin (905)

### Testing • Analysis

- Fatigue Life Analysis of Tire Stepped Direct-pressure Vulcanization Inner Mold ..... YANG Weimin, CHEN Hao, JIN Xiaozhe, TAN Jing, YAN Hua, JIAO Zhiwei (911)

### Comprehensive and Special Review

- Research Progress of Compressed Packer Rubber ..... MA Meiqin, CHEN Lan, KE Jun (917)

**China Standard Serial Numbering:** ISSN 1000-890X  
**CN** 11-1812/TQ

**Adv.& Dist.Tel.:** +86-10-51338152, 51338151

**Fax:** +86-10-51338150

**http://www.rubbertire.com.cn**

**E-mail:** rubbertire@263.net

**Published by** Editorial Office of China Rubber Industry

**Printed by** Beijing BOHS Colour Printing Co., Ltd

**Overseas Distributed by** China International Book Trading Corporation (P. O. Box 399, Beijing 100048, China)

**Publishing Date:** every 25th

**Overseas Subscription Price:** 25 USD

**Sponsored by** Beijing Research and Design Institute of Rubber Industry Co., Ltd  
**Edited by** Editorial Office of China Rubber Industry  
**Add.:** No. 19A, Fushi Road, Haidian District, Beijing 100143, China  
**Tel.:** +86-10-51338149, 51338678

**Serial Parameters:** CN 11-1812/TQ \* 1953 \* m \* A4 \* 80 \* zh \* P \* \$25.00 \* 4000 \* 13 \* 2023-11 \* n