

## Technical articles

V. THAKUR, S. WU

### Factors influencing curing, physical, electrical, and processing properties of automotive EPDM compounds – Effect of different carbon black types ..... 124

The replacement of steel car doors by Mg/Al doors for light-weighting results in electrochemical corrosion of the EPDM sealing profiles. This can be remedied, if the volume resistivity of EPDM profiles is increased by a reduction of carbon black content to below its percolation threshold. In this paper, the influence of different carbon black types onto the overall electrical and mechanical properties of the final compounds is reported.

S. MARK, Ü. ÖZKÜTÜKCÜ, R. BLANCO-TRILLO, R. SCHÄFER

### The Co-operation – Steel cord adhesion mixtures without cobalt and resorcinol..... 132

In the tire industry, cobalt salts and resorcinol resins are commonly part of mixtures for steel cord adhesion. However, regarding sustainability, work safety and environmental issues, these compounds have been increasingly considered as critical in recent years. Within the scope of a joint research cooperation, Brüggemann and Allnex developed a product, that allows the elimination of both cobalt and resorcinol from steel cord adhesion mixtures.

I. YARZABAL

### Bis-DMTD as ETU replacement in polychloroprene ..... 140

1,3-ethylene thiourea (ETU), an efficient curing agent for polychloroprene rubber (CR) and widely used accelerator for EPDM has been classified as a substance of very high concern (SVHC) after REACH evaluation. The French chemicals producer MLPC International has launched a complete study to identify the most appropriate safe replacement solution. A solution based on Bis-dimercapto-thiadiazole (Bis-DMTD) has proved most suitable...

M. ZAGHDOUDI, A. KÖMMLING, M. JAUNICH, D. WOLFF

### Overview of ongoing long-term ageing investigations on elastomer seals..... 146

At the Bundesanstalt für Materialforschung und -prüfung (BAM) in Division 3.4 Safety of Storage Containers, one of our tasks is to evaluate the safety of containers designed for disposal of low and intermediate radioactive waste. As such containers might be transported before and stored until disposal, safe enclosure of the radioactive inventory is important for this time span. Elastomer O-rings are widely used as barrier seals in these containers...

## Reports

Resource-efficient benchmarking of injection concepts through virtual optimization .....	120
Corona pandemic disrupts conference schedules.....	131
Advanced industrial-scale recompounding system .....	135
Automated fatigue crack growth measurement .....	136
New European manufacturing line for epoxy encapsulation materials .....	139
New technology uses radio frequency instead of steam to sinter foam beads for packaging, construction or vehicles .....	145
Natural Rubber Trends and Statistics .....	151
Next Fakuma to take place in 2021 in Friedrichshafen, Germany.....	152
3D printing latex rubber.....	153
Corona breathing masks made in Germany.....	154
30 <sup>th</sup> International Colloquium Plastics Technology to be held strictly digital .....	156

## Departments

Editorial .....	107
RFP news.....	110
People in the news .....	157
Suppliers list .....	160
Publication information & contacts .....	162