

## Design of 12R22.5 18PR GX58 Tubeless All-steel Truck and Bus Radial Tire

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**Abstract:** This paper introduced the design of 12R22.5 18PR GX58 tubeless all-steel truck and bus radial (TBR) tire. In the structure design, the following parameters were taken: overall diameter 1 094 mm, cross-sectional width 295 mm, width of running surface 250 mm, arc height of running surface 8.8 mm, bead diameter at rim seat 569.5 mm, bead width at rim seat 254 mm, maximum width position of cross-section ( $H_1/H_2$ ) 0.838, pattern block/total ratio 72.68%, and with GX58 center symmetric block pattern. In the construction design, the following processes were taken: two-piece and two-formula tread, 1 layer of  $0.25 + 6 + 12 \times 0.225$  HT steel cord for carcass ply, 2 layers of  $3 + 8 \times 0.33$  HT steel cord, 1 layer of  $5 \times 0.35$  HI steel cord and 1 layer of  $3 \times 7 \times 0.20$  HE steel cord for belt, using single stage three-drum forming machine to build tires, and 1 615 mm (65 inches) type B vulcanization machine to cure tires. The inflated peripheral dimension, strength property, endurance performance and high speed performance of the finished tire met the requirements of the design and national standards.

**Key words:** all-steel truck and bus radial tire; tubeless; structure design; construction design

### 阿朗新科推出超高门尼粘度三元乙丙橡胶

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阿朗新科公司推出一款超高门尼粘度三元乙丙橡胶 (EPDM) ——Keltan 13561C DE。该款产品具有中等结晶度和极高的门尼粘度, 可满足严苛的应用要求, 适用于汽车应用领域。

Keltan 13561C DE具有优异的混合与快速挤出性能, 高填充混炼胶表现出良好的弹性和抗塌陷性, 胶料整体成本较低。在保持填料用量不变的情况下, 采用Keltan 13561C DE替代现有EPDM牌号产品能够大幅提高胶料的物理性能。

Keltan 13561C DE是阿朗新科Keltan系列EPDM的第1款5位数牌号产品, 这意味着该产品具有极高的门尼粘度。Keltan 13561C DE的门尼粘度[ML(1+4) 100 °C]高达130, 超过Keltan系列其他牌号产品。

在汽车密封制品领域的应用试验表明, 新牌号EPDM有助于很好地改善制品的物理性能, 胶料中也可以添加更多填料和油以降低成本。

轨道交通隧道及污水管路密封制品是Keltan 13561C DE的另一重要应用领域。Keltan 13561C DE的加工性能优异, 可用于挤出与模压成型橡胶制品, 并可满足DIN EN 681-1—2003《弹性密封件. 给排水管道连接密封件材料要求. 第1部分: 硫化橡胶》(冷水)的技术要求, 关键优势在于其硫化制品在室外长时间存储过程中表现出杰出的耐候性能和耐臭氧性能。此外, Keltan 13561C DE还可用于汽车冷却液软管领域。

Keltan 13561C DE由阿朗新科的常州EPDM工厂采用Keltan ACE™催化技术生产, 目前已在中国和南美市场推出。

Keltan产品线全球营销负责人表示, Keltan 13561C DE不仅是公司而且是全球EPDM市场上独特的EPDM品种。目前, 阿朗新科正在研发可满足严苛应用要求的胶料配方, 探索该产品的应用潜力, 并考虑改变乙烯和亚乙基降冰片烯含量来打造更多新产品。

(朱颖斐)