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Study on Activation Mechanism of Blowing Agent H and Its Effects on Foaming of NR

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Abstract: The mechanism of the interaction between blowing agent H and urea, and their effects on the vulcanization and foaming property of NR were investigated. The results showed that, the decomposition course of blowing agent H/urea blend was different from their own decomposition reactions. The reaction temperature range was from 130 ℃ to 180 ℃, and the decomposition peak temperature was about 150 ℃. With equivalent blending ratio or with slightly higher urea level, the foaming effect was the best, and both blowing agent H and urea had significant accelerating effects on the vulcanization of NR. The dispersion of urea had significant effect on the pore uniformity of NR foam.

Key words: blowing agent; urea; NR; decomposition characteristics; foaming property

无接头橡胶履带一次成型硫化装置

中图分类号:TQ330.4+7 **文献标志码**:D

由镇江同立橡胶有限公司申请的专利(公开号 CN 101804677A,公开日期 2010-08-18)“无接头橡胶履带一次成型硫化装置”,涉及的硫化装置由第 1、第 2 和第 3 内模收缩张紧滑块,上、下内模具,内模通汽加热平板,收缩张紧机构,定位铰链,上、下外模具构成。上外模具和下外模具对称设置在成型硫化装置上部和下部,上、下外模具内的左端和右端由上至下分别设置有第1、第 2 和第 3 内模收缩张紧滑块,上内模具通过定位铰链安装于左右两端的第 1 内模收缩张紧滑块之间,下内模具通过定位铰链安装于左右两端的第 3 内模收缩张紧滑块之间,内模通汽加热平板设置在上内模具和下内模具之间,收缩张紧机构分前后各自连接在第 2 内模收缩张紧滑块外表面的中部。该装置对整条无接头橡胶履带产品只需进行一次成型、硫化操作就能完成生产操作。

(本刊编辑部 马 晓)