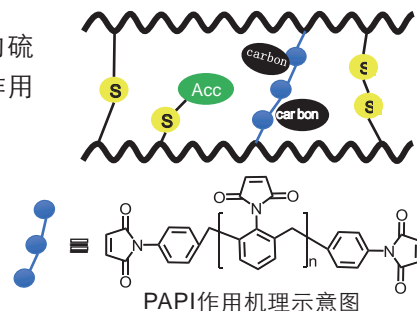


高耐久改性剂 TOPWIZ® PAPI

特点

PAPI是一款橡胶高耐久改性剂。它通过Alder-Ene反应，可直接参与橡胶的硫化交联，重构交联网络；PAPI分子结构上的多个苯环调整了炭黑与橡胶的作用方式，有助于炭黑分散。产品特性如下：

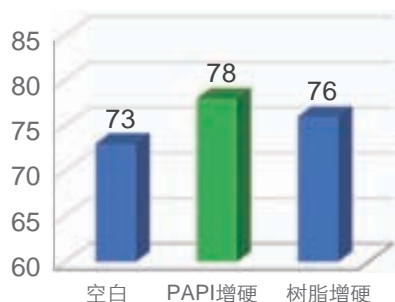
- 1 参与交联，抑制硫化返原，提高热氧老化后的力学性能
- 2 抑制裂纹生长，改善减震橡胶疲劳性能
- 3 提高与钢丝帘线、金属零部件的界面粘合性能



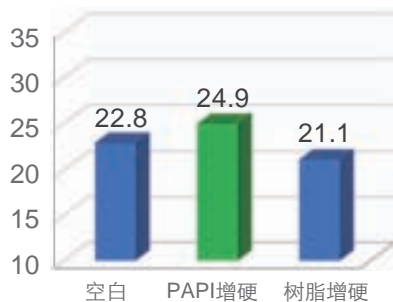
性能

缺氧保用轮胎支撑胶中的应用

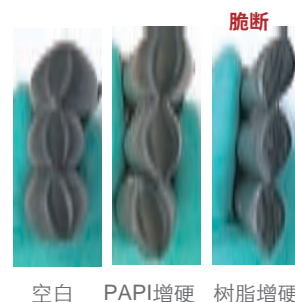
硬度 (Shore A)



拉伸强度 (MPa)

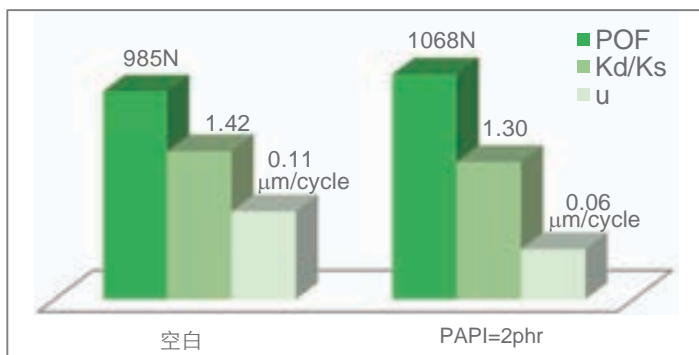


10万次屈挠疲劳试验



汽车减震橡胶中的应用

钢丝抽出力(POF)、动静刚度比(Kd/Ks)及裂纹生长速率(u)



悬置减震件台架试验



在减震橡胶中添加2份PAPI，能够显著提高橡胶与金属间粘合力，优化动静刚度比，降低裂纹扩展速率。悬置试样经50万次往复疲劳测试，金属部件发生疲劳破坏，橡胶表面光滑完好。

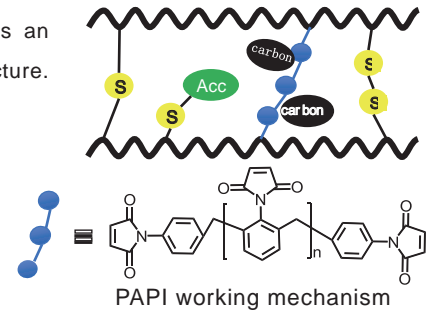


High Endurance Additive TOPWIZ® PAPI

Features

As a high endurance additive, PAPI reacts with rubber by Alder-Ene reaction, acts as an auxiliary vulcanizer. PAPI also can improve carbon black dispersion due to its benzyl structure. Its advantages are as following.

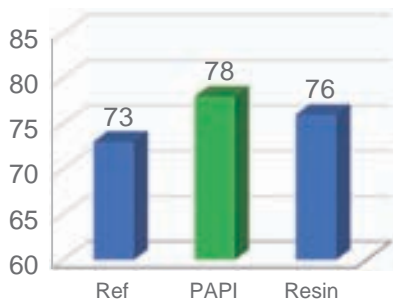
- 1 As crosslinker with anti-reversion function, improving post-aging properties
- 2 Slow down crack propagation rate and improve fatigue life
- 3 Enhance adhesion between rubber and metal/steel cord



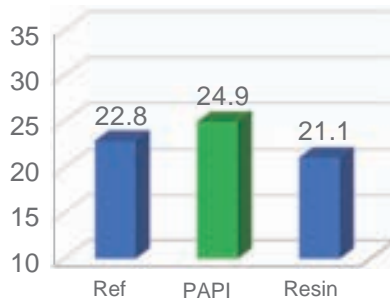
Performances

Run Flat Tire Support Application

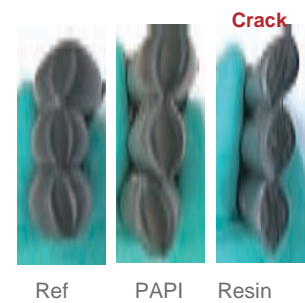
Hardness(Shore A)



Tensile strength(MPa)

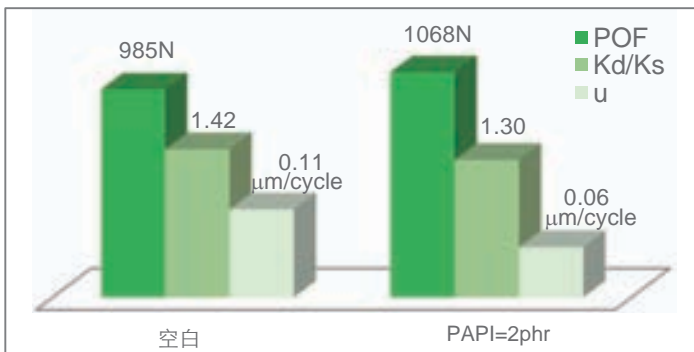


Damage after 10W cycle fatigue



Automobile Engine Mount Application

Steel Cord adhesion(POF), Dynamic to static stiffness ratio(Kd/Ks) Crack Propagation Rate(u)



Engine mount bench test



By addition of 2phr PAPI, the fatigue life of the engine mount anti-vibration rubber is significantly improved by slowing down crack propagation, strengthening adhesion with metal and reducing dynamic/static stiffness ratio. In the case above, after 500,000 fatigue cycles, failure happened on the metal part without any rubber part damage.



All test results are for reference purpose only, not guarantee for actual products.