

Tailoring Natural Rubber Compounding and Processing for Aircraft Tire Treads

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The properties needed for aircraft tire treads are significantly different from the ones required for passenger car or truck tires, for which improvements mainly focus on a better balance of rolling resistance, wet skid resistance and wear resistance. Aircraft tires experience severe operation conditions during service: The temperature can reach the critical temperature of polymers, thus accelerating tread wear and aging. To reduce this temperature degradation, the material should have a low hysteresis. This presentation will focus on the influence of the type of filler and includes adjustment of the processing conditions for optimization of aircraft tire related properties.