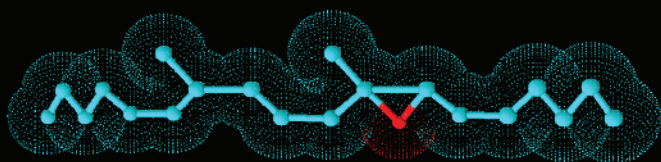
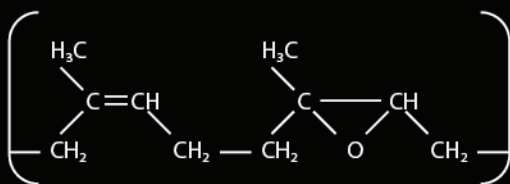






EKOPRENA® is a form of epoxidised natural rubber (ENR) and an established class of specialty rubber obtained by epoxidation of natural rubber (NR) latex. **EKOPRENA®** is a green material as it is produced from a renewable natural source unlike synthetic rubbers which are derived from non-replenishable petroleum.



Chemical structure of **EKOPRENA®**

EKOPRENA® is produced and presented in the form of polythene wrapped 33.3 kg bale. For export purposes, 36 bales of EKOPRENA® are packed into a 1.2 tonne pallet. Two grades of EKOPRENA® are produced commercially namely EKOPRENA 25® and EKOPRENA 50® containing 25 and 50 mole % epoxidation contents, respectively.



Production of EKOPRENA® incorporates a stringent quality control to ensure the quality of material produced. All EKOPRENA® produced is subjected to comprehensive analytical tests including determination of epoxidation level via Nuclear Magnetic Resonance (NMR).



The two grades of EKOPRENA® covers a wide range of properties desirable for most of the expected applications for ENR.

PROPERTIES	APPLICATION	RECOMMENDED EKOPRENA® GRADE
Damping	Shoe Soles	EKOPRENA 50
Wet-grip / rolling resistance	Tyre tread	EKOPRENA 25
Oil resistance	Hoses, blow-out preventors, milking inflations, connectors and tubes	EKOPRENA 50 EKOPRENA 25
Gas impermeability	Bladders, inner tubes and tyre liners	EKOPRENA 50



Typical raw rubber properties of



	
Mooney viscosity: 70-100	Mooney viscosity: 70-100
Glass Transition Temperature (Tg): $-20 \pm 2^{\circ}\text{C}$	Glass Transition Temperature (Tg): $-45 \pm 2^{\circ}\text{C}$
Epoxidation Level: $50 \pm 2\%$	Epoxidation Level: $25 \pm 2\%$

EKOPRENA® as a green material for the manufacturing of environmentally-friendly rubber products suits with the global trend towards sustainable development. This leads to waste minimization and efficient use of natural resources (eco-efficient). The use of this green material also exerts less stress to the environment and improves carbon life cycle of rubber products.



Key features of 

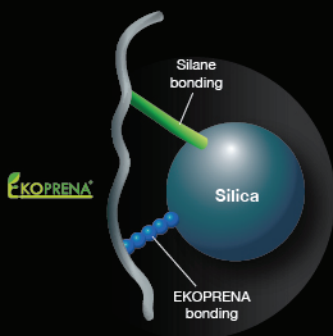
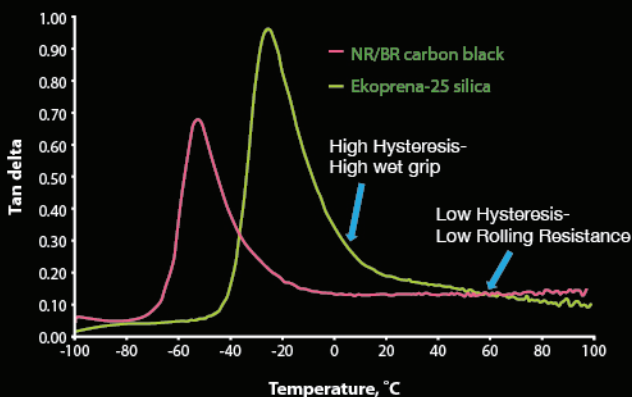
Overall Technical Performance of



EKOPRENA® - A Renewable Material for Fuel Efficient, Safe Tyres

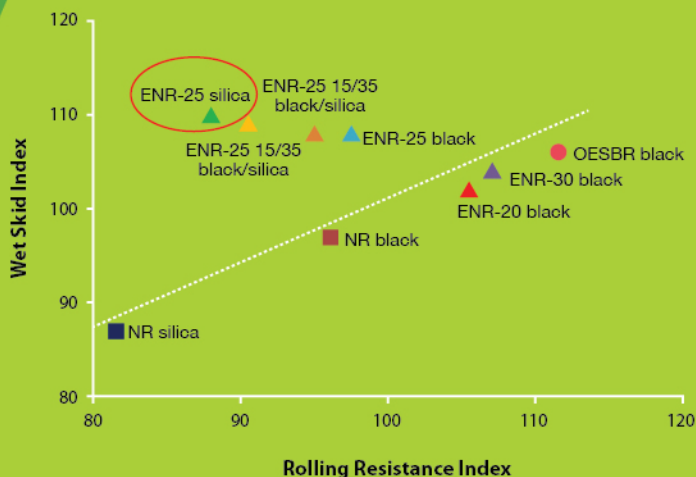
The use of EKOPRENA® tread compound reinforced with highly dispersible silica fillers is a unique combination that offers very low rolling resistance and exceptionally high wet grip for tyres.

Dynamic Properties of EKOPRENA® Based Tread Compound



Hybrid Reinforcement of Silica and EKOPRENA®

Rolling Resistance and Wet Skid Index

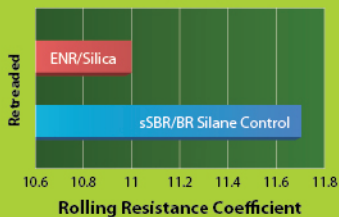


Improvement in Fuel Efficiency

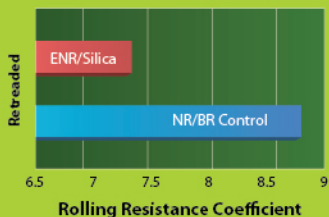


Rolling Resistance

Passenger Tyres



Truck/Bus Tyres

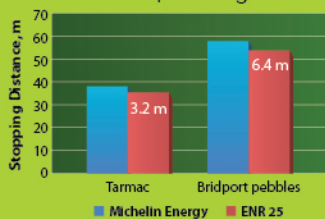


Enhancement in Wet Grip for Safety



Wet Grip

Wet Grip Testing





Malaysian Rubber Board

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