

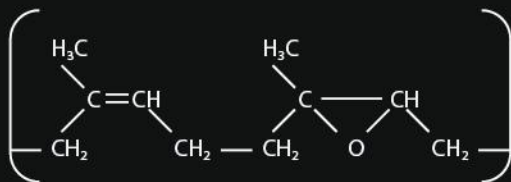


 EKOPRENA®

Green Material for Rubber Products

# EKOPRENA®

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



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 EKOPRENA®

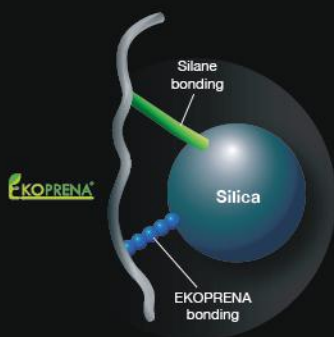
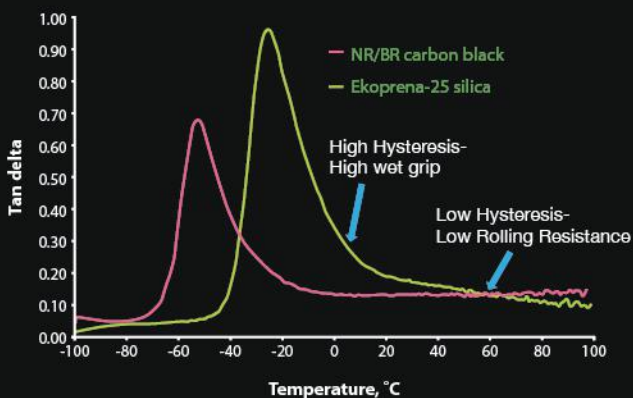
## Overall Technical Performance of



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

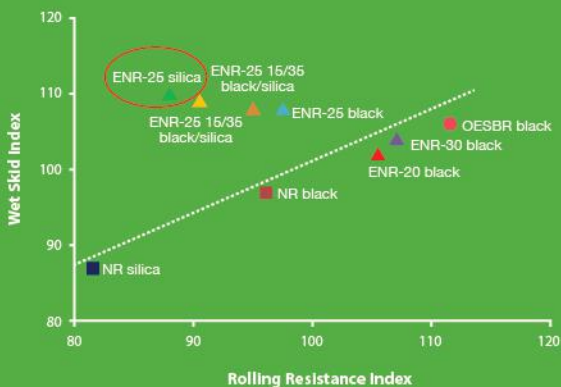
The use of EKOPRENA® tread compound reinforced with highly dispersible silica fillers is a unique combination that offers very low rolling resistance and exceptionally high wet grip for tyres.

#### Dynamic Properties of EKOPRENA® Based Tread Compound



Hybrid Reinforcement of Silica and EKOPRENA®

# Rolling Resistance and Wet Skid Index

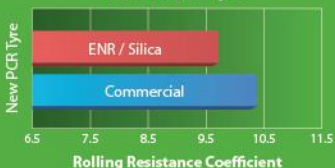


## Improvement in Fuel Efficiency



Fuel Efficiency

### Passenger Tyre



## Enhancement in Wet Grip for Safety



Wet Grip

### Passenger Tyre



### Truck / Bus Tyre



### Truck / Bus Tyre

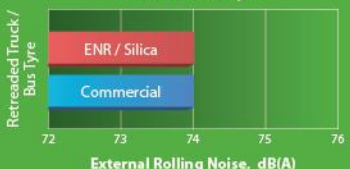


Tyre Rolling Noise

### Passenger Tyre



### Truck / Bus Tyre







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