

# Matrica: the integrated platform for chemistry from renewable sources.

## Matrica's project.

Matrica is a joint venture between Versalis (Eni), which specializes in the manufacturing and marketing of petrochemical products, and Novamont, leader in the bioplastics market. These two companies' research efforts and expertise were key in an industrial reconversion project that led to an integrated platform for chemistry from renewable sources. Today, the innovative range of Matrilox® bioproducts is manufactured in Porto Torres, Sardinia.



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# Matrilox® P: bio plasticizers for tyre.

New opportunities  
for green rubber.



# Matrilox® PF800 series: a new family of plasticizers from renewable sources.



Matrica offers a range of innovative bio-sourced plasticizers for general purpose elastomers.

Matrilox® PF800 series offers a high-performance, non-toxic, eco-sustainable alternative to traditional process oils.

Matrilox®, characterized by high molecular weight and low release level, makes it possible to achieve excellent plasticization and exceptional thermal stability.

Matrilox® PF800 series has been specifically designed for the rubber industry with the aim of partially or totally replacing oils of fossil origin. It can be used as a compounding plasticizer for the tyre sector and the industrial market. The specific and bio-related properties of Matrilox® represent an additional tool for the tyre industry to develop well-balanced and unique sustainable formulations.

The proposed novel plasticizers also provide opportunities to further extend the idea of green tyres.



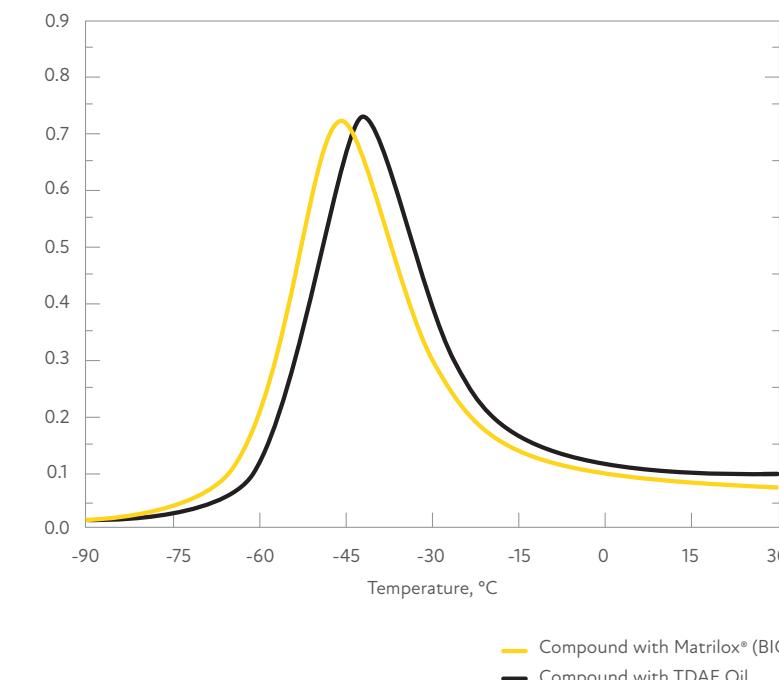
# Matrilox® PF800 series: applications in the tyre field.



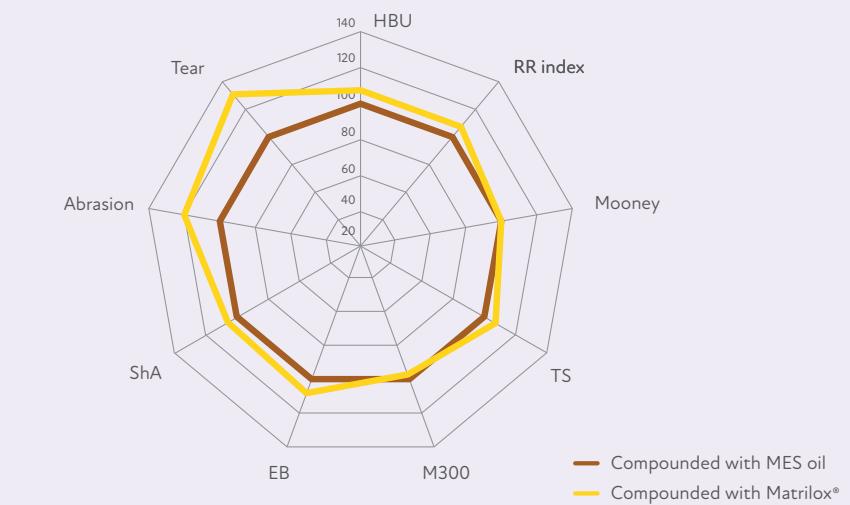
## MATRILOX® PF800 SERIES

Matrilox® PF800 series shows very low glass transition temperature (around -90°C) and is able to shift the glass transition temperature of rubber compounds also in the presence of low Tg polymers.

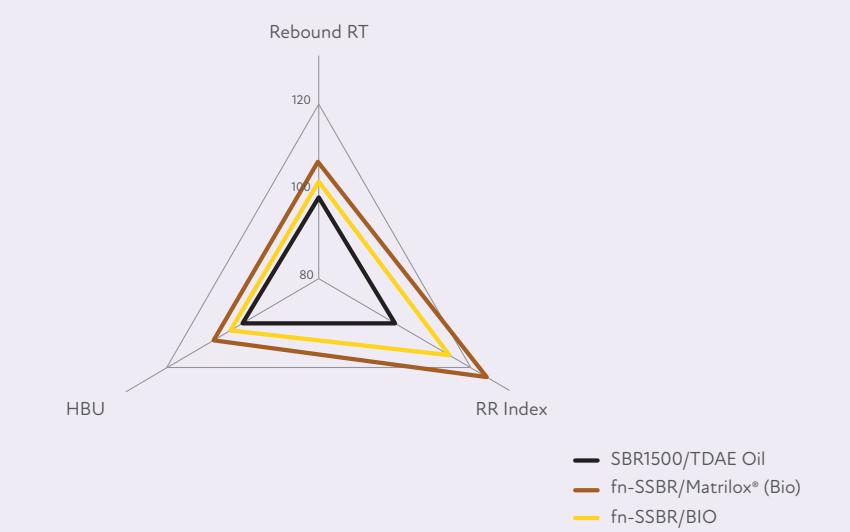
The low unsaturation level, together with chemical modification at the bio-refinery stage provides an overall positive performance in terms of mechanical properties, hysteresis, tear resistance, abrasion resistance and ageing, avoiding major changes in the cure package, potentially required when using traditional vegetable oils.



## MATRILOX® PF800 SERIES IN SILICA TREAD COMPOUND, NR/SSBR, 50 PHR PROCESS OIL



## MATRILOX® PF800 SERIES IN DUAL FILLER TREAD COMPOUND, NR/SBR/BR, 10 PHR PROCESS OIL



## MATRILOX® PF800 SERIES IN UHP TREAD AT HIGH FILLER LOAD (110 PHR SILICA, 40 PHR OIL)



Results show a similar behavior compared with many standard NBR plasticizers.