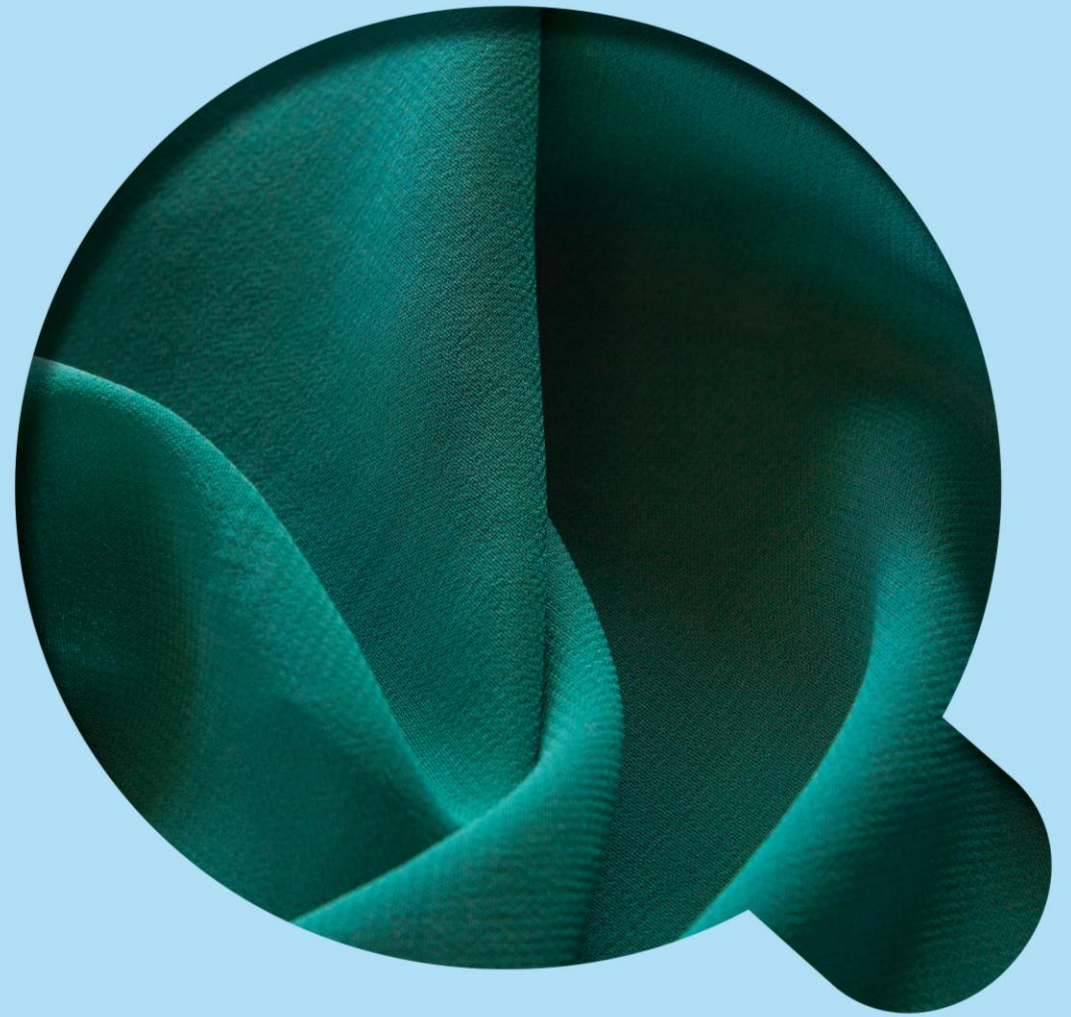


# Improving the CO<sub>2</sub> footprint for fashion

Welcome to our next generation  
sustainable solution.

**QIRA**





# Fashion: Putting more sustainability into the hands of designers

When designing everything from apparel to footwear, QIRA can help you become an engineer of change to improve the sustainability of your products.

QIRA can be turned into a variety of materials that are windproof, waterproof, optimally breathable and stretchable while remaining soft and luxurious to the touch.



# Being more sustainable has never been so easy.

Your customers are expecting you to lead. As growing consumer environmental awareness drives demand for eco-friendly textiles, brands are accountable for making positive change happen. That's why we have developed QIRA, the next generation of BDO – an easy-to-implement, bio-based BDO that vastly reduces CO<sub>2</sub> emissions and paves the way for a circular future. Made from renewable plants, like corn, QIRA can accelerate your journey toward a fossil-free future.

We are convinced that sustainability shouldn't be difficult. And being sustainable shouldn't force you to compromise on quality. By collaborating with you and your material producers on how best to incorporate QIRA, together we can help define new standards in the textile industry. With QIRA, you can keep delivering the quality your customers deserve, while enabling them to improve their CO<sub>2</sub> footprint.

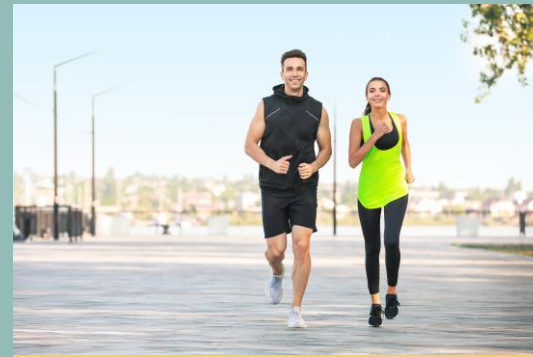
# With QIRA a large variety of materials can become more sustainable



Shoes



Outdoor wear



Athletic wear



Underwear



Denim



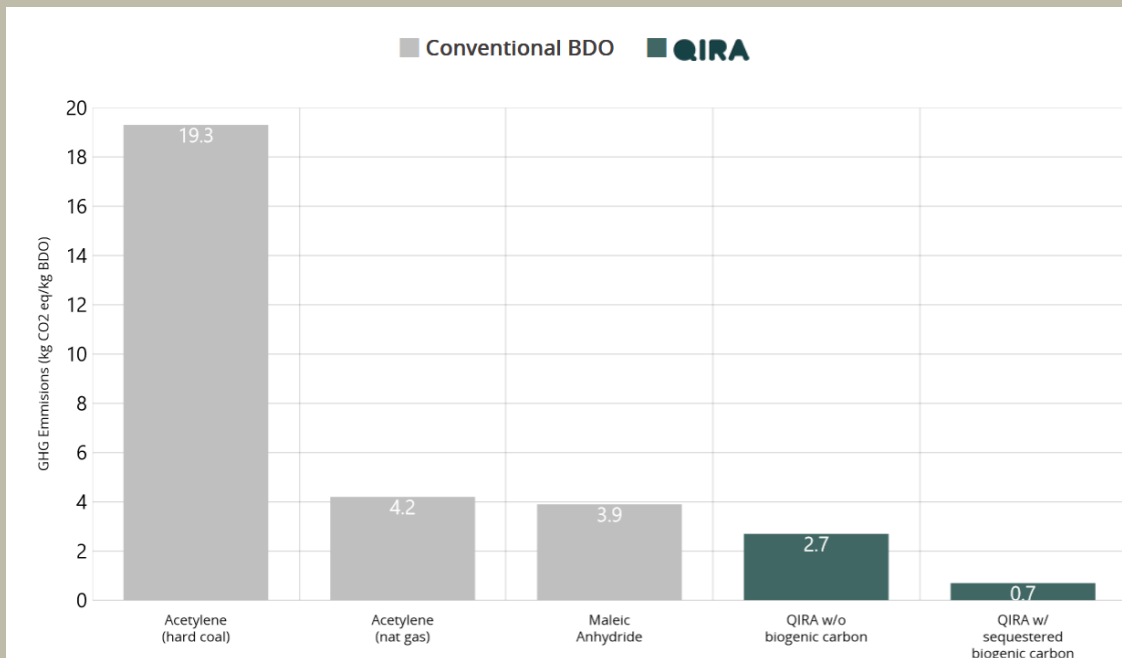
Suits

# Reduced CO<sub>2</sub> footprint

Due to its unique manufacturing process and use of renewable plants, like corn, QIRA can lower a product's CO<sub>2</sub> footprint compared to products made with conventional BDO.

As QIRA can be used in a variety of industries, such as fashion, automotive, packaging and elec-

tronics, it can play an important role in making our planet more sustainable. We continue working with our supply chain partners to further improve QIRA's CO<sub>2</sub> footprint with the goal of becoming "net-zero" or even carbon negative.



**Disclaimer:** This information is based on preliminary evaluations and is provided for informational purposes only. Specific results for fossil-based products may vary. QIRA (bio-based BDO) GHG calculated based on site-specific data in North America and engineering design from 2021. QIRA (bio-based BDO) results are from an external commissioned study. Conventional BDO results were calculated internally using IPCC 100a method and data from EcoInvent database version 3, assuming production in China. The information in these graphs are based on publicly available sources and unpublished data and is believed to be true and accurate, however, Qore does not guarantee or make any warrant of accuracy or completeness.

# Specification

QIRA has the same specification as conventional 1,4-butanediol. To guarantee the same quality of material, producers must ensure that the specification of their raw materials are within a defined range. BDO is globally specified by its

purity, moisture content, color and appearance. QIRA offers the same or even higher quality than fossil-fuel based BDOs and therefore can be used as a direct replacement.

	QIRA (bio-based BDO)	Conventional BDO
Assay (wt % 1,4-butanediol)	> 99.5	≥ 99.5
Water (ppm)	< 500	< 500
Color (APHA)	< 10	< 10
Appearance	Clear, free of visible matter	Clear, free of visible matter

QIRA: The following test methods are used: GC, DIN 51777 and DIN EN 1557

# QIRA

**Please get in touch  
with us**

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[www.myqira.com](http://www.myqira.com)

