



# **Plant-derived superhigh-index lens material.**

**Reduces total greenhouse gas by 14%  
compared to petroleum-derived lens material.**

**Bio-based**

**DoGreen™**

# A shift from petroleum-derived to plant-derived lens materials

## Do Green™ MR-174™ helps reduce CO<sub>2</sub> emissions.

### Features

- Do Green™ MR-174™ is a superhigh-index 1.74 lens made from plant-derived materials.
- This plant-derived lens material offers performance equivalent to conventional petroleum-derived products.
- JORA and USDA certified biomass products\*<sup>1</sup> \*<sup>2</sup>
- Product manufacture generates 14% less greenhouse gas emissions than conventional petroleum-derived materials.\*<sup>3</sup>

### Premium optical quality

High-quality lens with minimum stress strain.

### Superhigh-index

Offering among the highest refractive indexes possible, this optical material can be used to produce light, thin lenses, even for strong prescriptions.

### Durability and weather resistance

Outstanding weather resistance prevents changes in hue over time and provides long-lasting coating performance.

### Properties

	DoGreen™ MR-174™
Biomass Degree*	80-90%
R.I. (ne)	1.74
Abbe Number (ve)	32
Heat Distortion Temperature (°C)	78
Specific Gravity	1.47
Tintability	OK
Impact Resistance	OK

\* Proportions of biomass-based carbon vs. fossil-based carbon (14C content measurements are based on the ASTM-D6866-12 method)

The values provided are representative measurements obtained by specific testing methods at Mitsui Chemicals. They are not guaranteed values

JORA biomass degree\*<sup>1</sup>  
30% to 40%



Biomass  
No. 140018

USDA biomass degree\*<sup>2</sup>  
82%



\*1 JORA certification: Biomass mark indicating certification by the Japan Organic Recycling Association of environmental products recycled from bio-based resources (biomass) and meeting applicable quality regulations, standards, and criteria

\*2 USDA certification: Biomass mark indicating plant-derived certification by the United States Department of Agriculture (USDA BioPreferred®)

\*3 According to our Life Cycle Assessment (LCA) procedure

<http://www.mitsuichem.com/special/mr/index.htm>



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