

high performance additives

BioEXTEND
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Eastman BioExtend

Antioxidant Solutions for Biodiesel

- Outstanding Antioxidative Power
- Superior Results at Low Concentrations
- Increased Performance as a Result of the Dual Antioxidative System
- Excellent Resistance to Low Temperatures

Superior performance at low concentrations—*BioExtend* antioxidant provides significantly greater performance than other antioxidant solutions at a much lower concentration.

Designed to extend the shelf life of biodiesel, *BioExtend* 30 inhibits biodiesel's tendency to react with oxygen. This oxidation can result in polymer formation leading to clogged fuel filters, damaging deposits, and residues in engines.

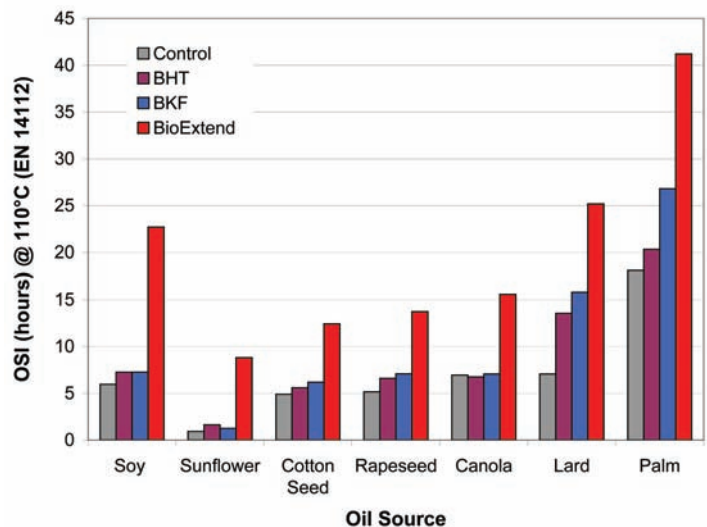
BioExtend 30 is a combination of 30% MTBHQ, a very powerful antioxidant, with an effective chelating agent. This unique combination significantly boosts the antioxidative power to effectively inhibit the rapid oxidation of biodiesel. Unlike other antioxidants, only small quantities of *BioExtend* antioxidant are required to achieve targeted stability levels, hence providing effective and durable protection.

BioExtend's solvent system is designed for use in extremely cold weather and prevents separation of the antioxidant—*BioExtend* antioxidant remains liquid below -25°F .

BioExtend 30 provides superior oxidative stability in biodiesel produced from a variety of raw materials: soy, rapeseed, sunflower, palm, and a wide variety of other sources.

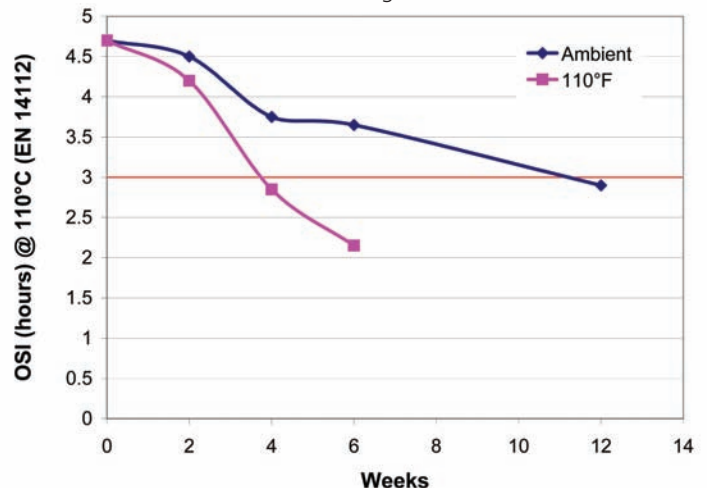
From food to cosmetics, Eastman has produced innovative antioxidants for more than 50 years, including a variety of easy-to-use solutions. The introduction of *BioExtend* 30 is another example of Eastman's drive to develop innovative antioxidant solutions.

Biodiesel OSI With Antioxidants (at 200 ppm active)



Oxidative stability of <1 week old biodiesel comparing *BioExtend* 30 with other antioxidants.

OSI Degradation

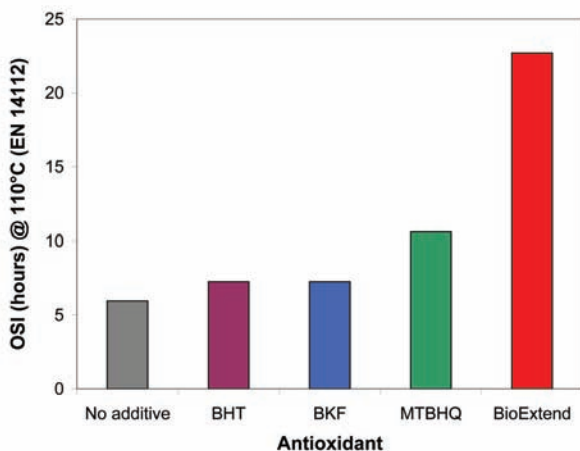


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Low Concentration

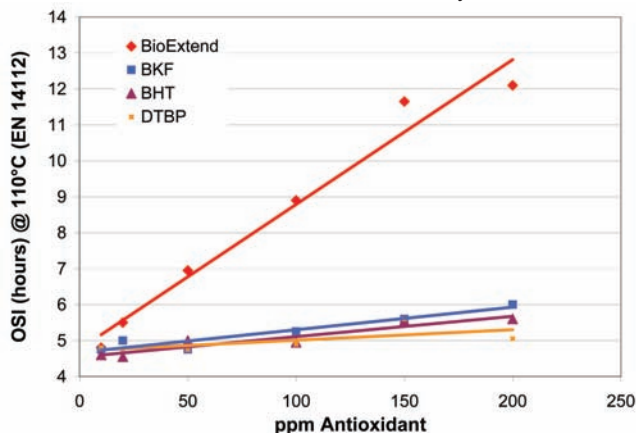
Excellent Stability

Oxidative Stability of Soy Biodiesel
(at 200 ppm active)



Even at very low concentration, *BioExtend* antioxidant provides improved oxidative stability compared with other antioxidants (<1 week old biodiesel).

Antioxidants Effectiveness in Soy Biodiesel



Visit
www.EastmanBioExtend.com
for more information.



Contact Nancy Kinkade at
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to learn more about
Eastman BioExtend antioxidant.

Consider contacting Eastman for a free
evaluation of the oxidative stability of
your biodiesel.

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