

Connecting**Chemistry**



OXABIOL & NEUBOX

Natural and synthetic
antioxidants



Oxabiol & Neubox

Brenntag offers a wide range of natural & synthetic antioxidants, professional analytical service and consultancy in the field of application, dosing, choosing the right combination of antioxidants adapted to the customer's needs.

SYNTHETIC ANTIOXIDANTS

Brenntag has been producing premixes of synthetic antioxidants since the '90s. Our products are offered under the trade name of Neubox and are based on: BHT, BHA, propyl gallate and citric acid.

Product name	BHA	BHT	Propyl gallate	Citric acid
Neubox PET Liquid	5	15	-	-
Neubox PET Dry	5	20	-	-
Neubox PET PREMIUM Dry	-	17	7	25
Neubox PET STRONG Liquid	10	10	-	-
Neubox PET 24/8/8 Liquid	24	-	8	8
Neubox PET 30 Liquid	10	-	10	10
Neubox PET HC Dry	4,4	22	-	-

NATURAL ANTIOXIDANTS

Brenntag is a distributor of BTSA, a Spanish producer of natural antioxidants with over 25 years of experience. Oxabiol products are based on tocopherols, rosemary extract, green tea extract and lecithin.

Product name	Form	Tocopherols (min. %)	Lecithin	Green Tea Extract	Rosemary Extract
Oxabiol PET	Liquid	30			
Oxabiol Premium PET	Liquid	50			
Oxabiol L Premium PET	Liquid	45	•		
Oxabiol ERL Premium PET	Liquid	35	•		•
Oxabiol XT Premium PET	Liquid	45	•	•	
Oxabiol PET PVS	Dry	18			
Oxabiol Premium PET PVS	Dry	30			
Oxabiol L Premium PET PVS	Dry	25	•		
Oxabiol ERL Premium PET PVS	Dry	20	•		•
Oxabiol XT Premium PET PVS	Dry	25	•	•	

Tests & services

We provide our customers with the highest possible protection against oxidation of their products.

RAPIDOXY TEST

It is an analytical instrument allowing to a comfortable determination of oxidation stability of oils and fats.

This technique is based on artificial acceleration of the oxidation process by increasing the temperature and oxygen pressure, which is in contact with sample in a sealed chamber. As a consequence of oxidation, a part of oxygen is consumed and incorporated into the sample, resulting in oxygen pressure reduction.

Falling pressure determines the end of oxidation procedure, establishing induction time, i.e. the time elapsed between the start and interruption point of the test. It characterizes the resistance of oils and fats to oxidation. The longer the induction time, the higher resistance to oxidation. It allows to estimate the shelf life of oils and fats.

ANALYTICAL SERVICES IN OUR OFFER

- oxidative stability (rancimat test, rapidoxy test)
- BHA, BHT, propyl gallate content, also at the very low detection level, to exclude the presence of synthetic antioxidants in raw material, petfood, etc.
- tocopherols content (isomers: delta, beta & gamma, alfa)
- peroxide value

WHAT ARE THE ADVANTAGES?

Rapidoxy tests have several advantages over the standardized methods of accelerating oxidation:

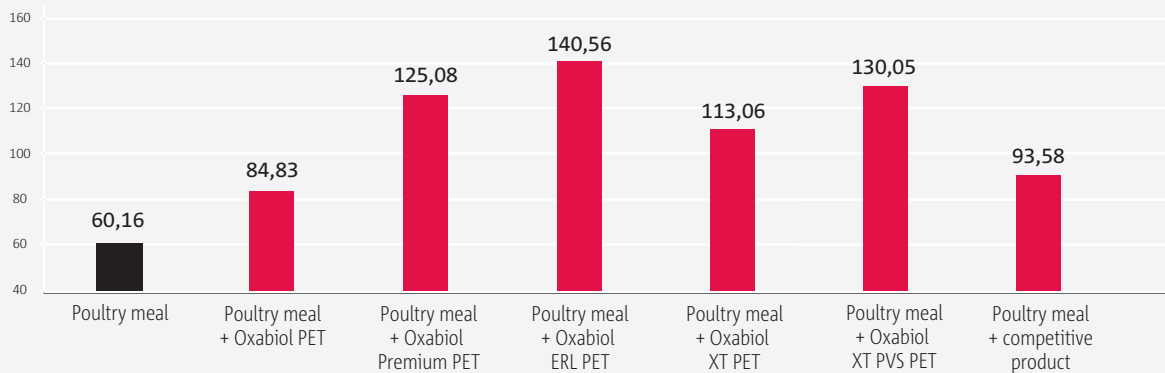
- no need to prepare samples - extraction is not required (cost effective, less risk, etc.),
- works with solid, liquid and semi-solid substances,
- faster than other methods of accelerating oxidation,
- quick reporting after testing.

Comparison of antioxidants

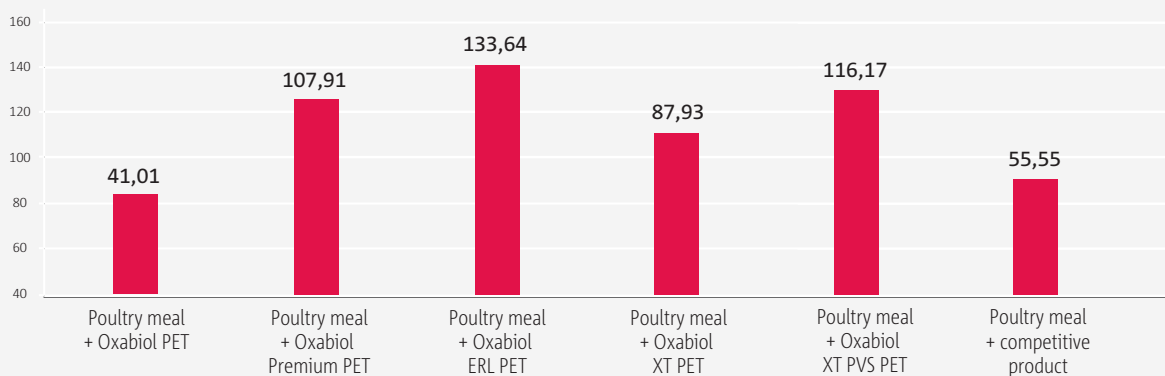
Comparison of natural products from BTSA versus competitive natural antioxidants. Tests were carried out using the RapidOxy device with Oxabiol PET products compared to one of the competitive products, and one control sample without any addition of antioxidant.

Sample	Dose (ppm)	Minutes RapidOxy	Oxidative stability increase (%)
Poultry meal	-	60,16	-
Poultry meal + Oxabiol PET	2150	84,83	41,01
Poultry meal + Oxabiol Premium PET	2150	125,08	107,91
Poultry meal + Oxabiol ERL PET	2150	140,56	133,64
Poultry meal + Oxabiol XT PET	2150	113,06	87,93
Poultry meal + XT PVS PET	2150	130,05	116,17
Poultry meal + competitive product	2150	93,58	55,55

Minutes RapidOxy

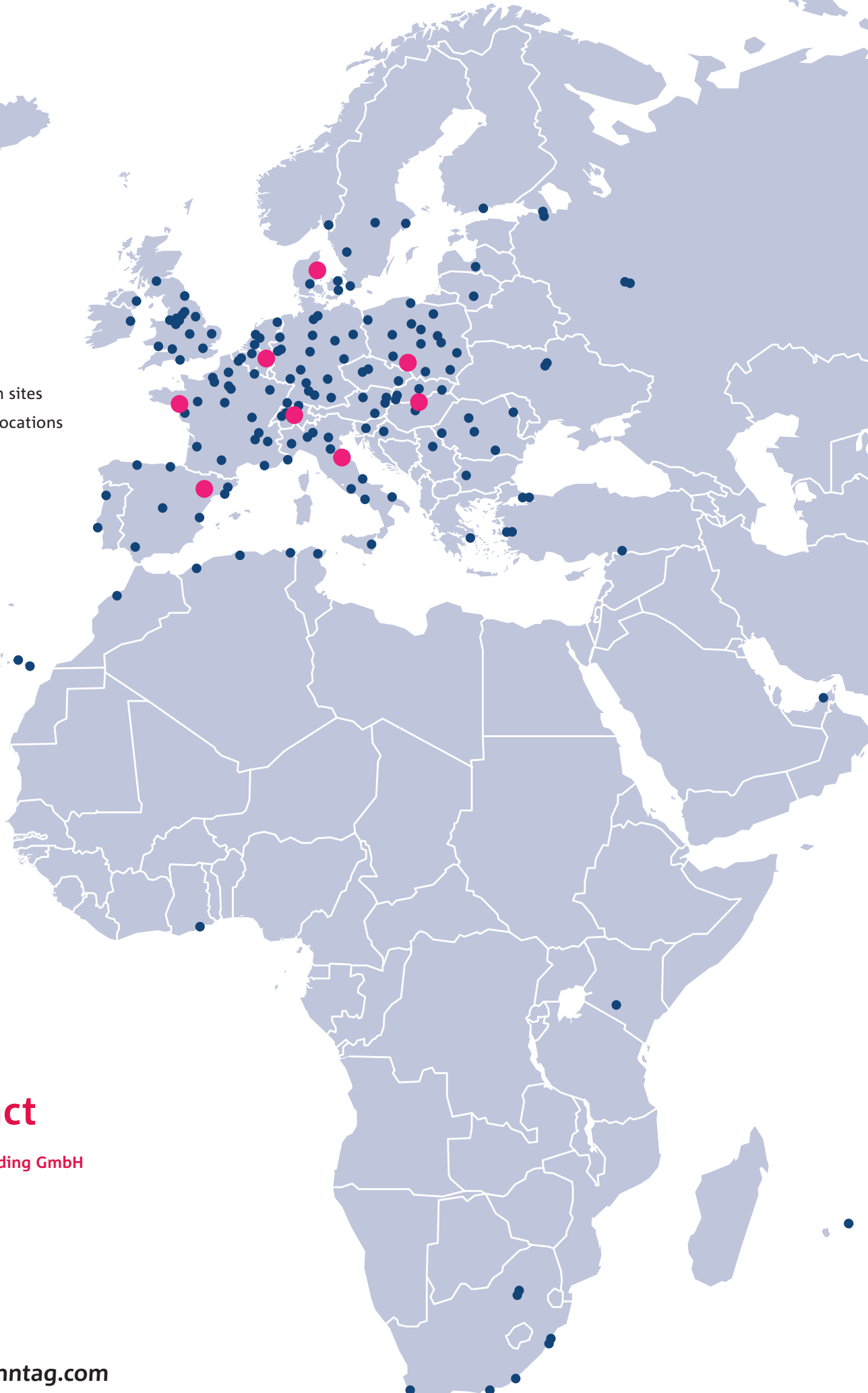


Oxidative Stability Increase (%)



Tests carried out by



- 
- Production sites
● Brenntag locations

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