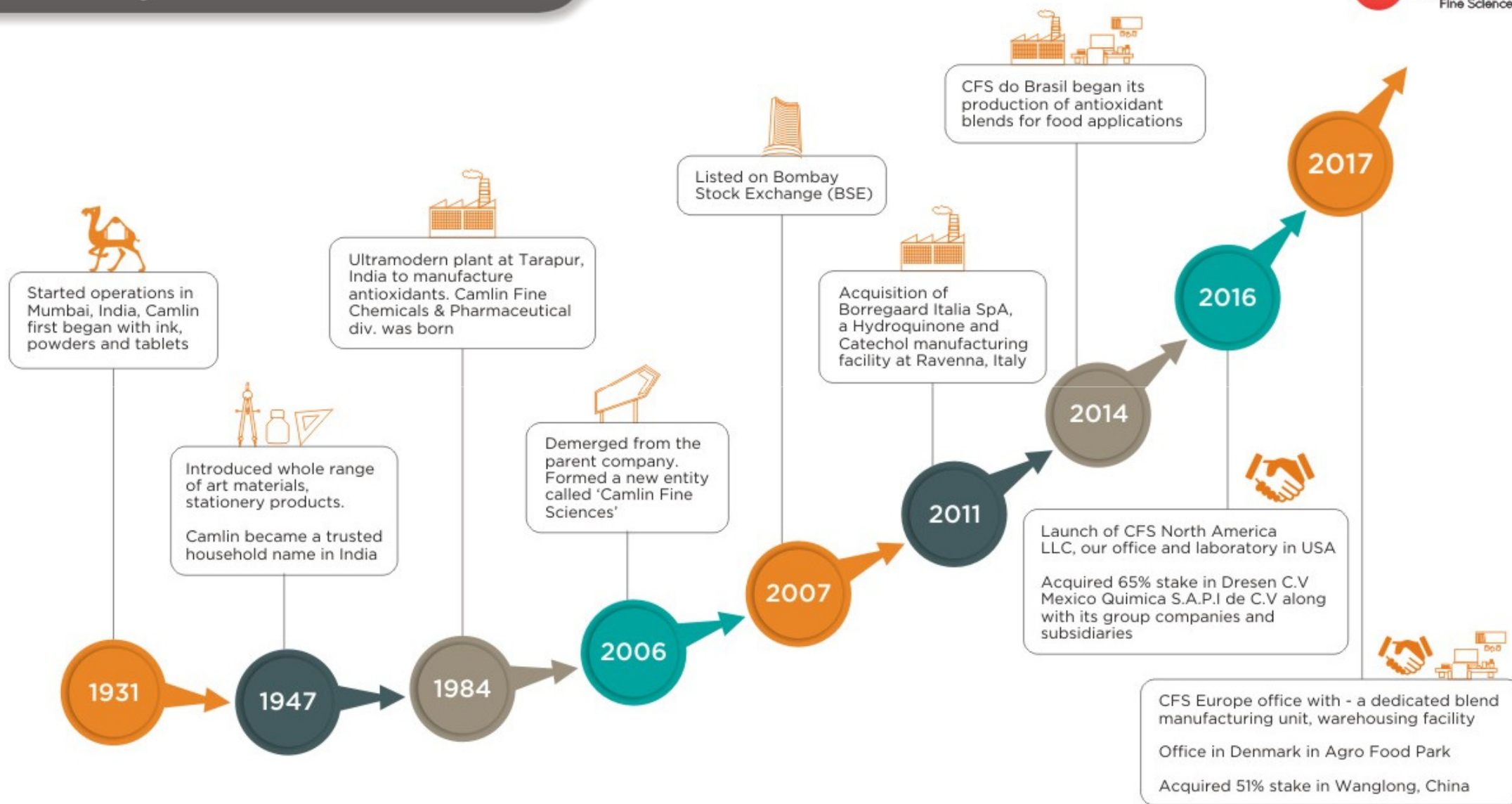


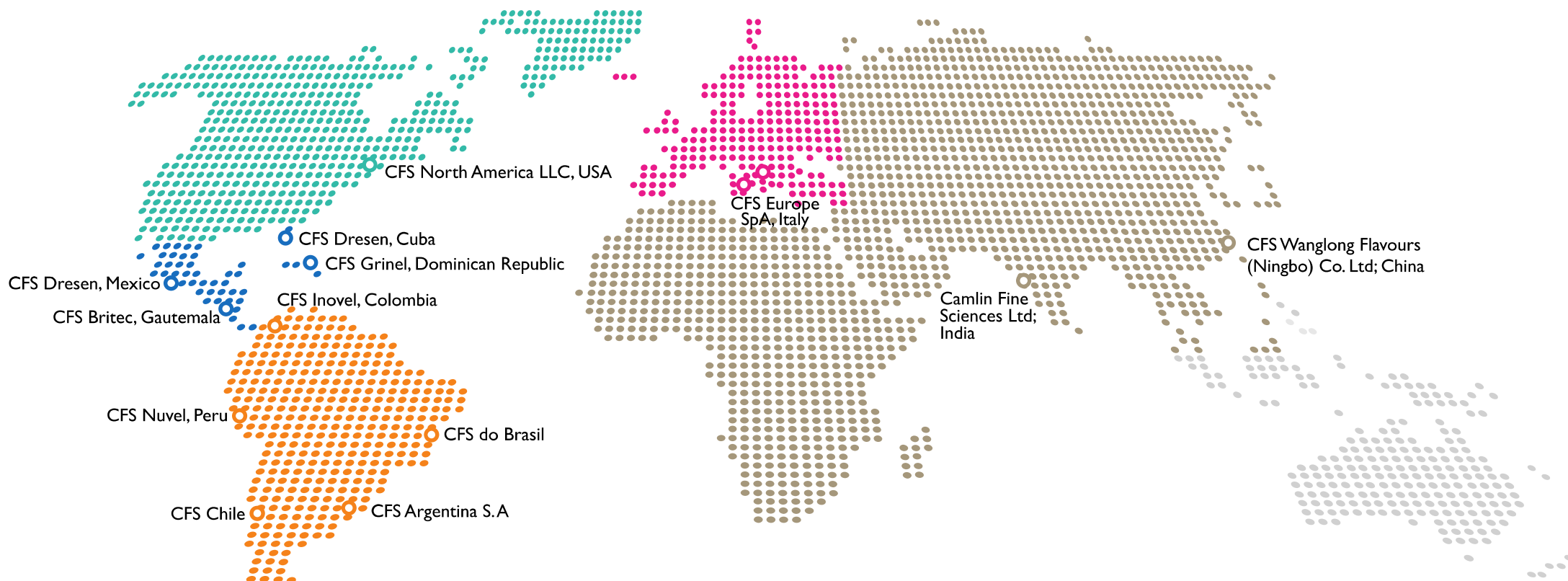
BRINGING SCIENCE  
TO EVERYDAY LIFE



# OUR JOURNEY



# GLOBAL REACH, LOCAL PRESENCE



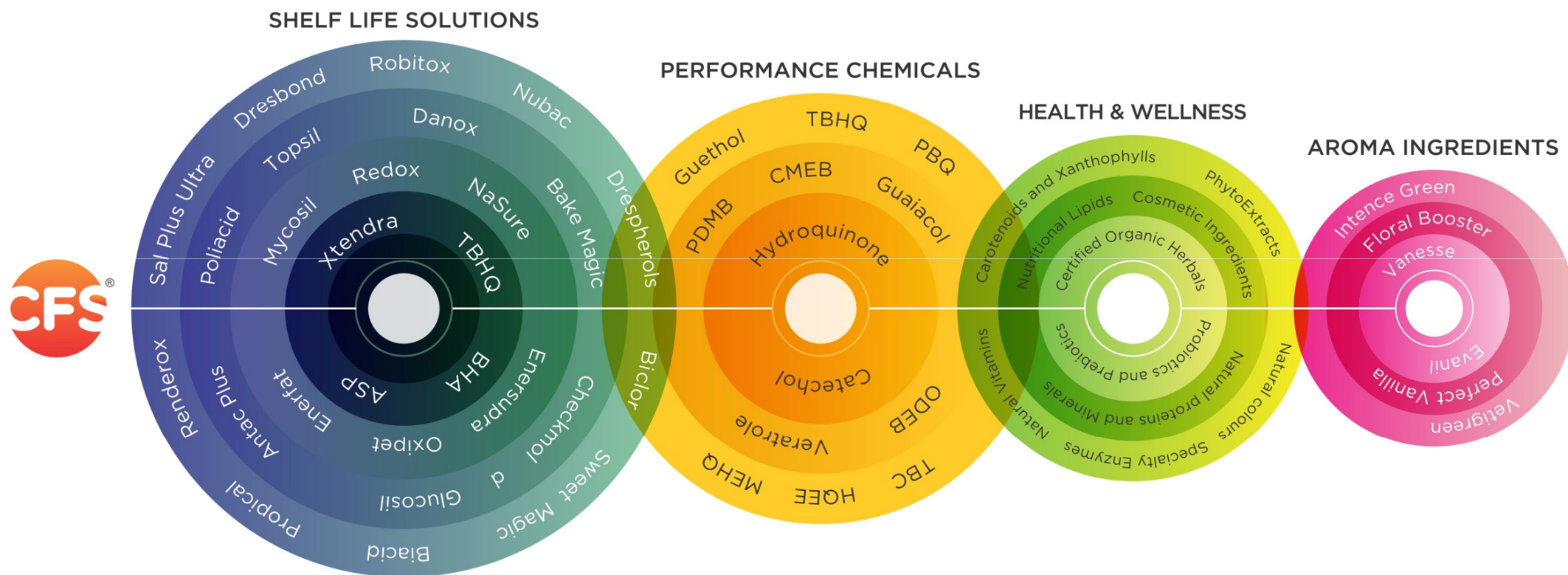


# SUPPORT SERVICES

CLOSER TO CUSTOMERS LIKE NEVER BEFORE



# OUR COMPANY PRODUCTS



\*Figures estimated as per Indian FY2018-19

# BLENDS FOR BIODIESEL



Camlin Fine Sciences offers to this industry two blends at two concentrations:

**Xtendra BL 100**  
High Performance Biodiesel Antioxidant

30% Active

**Xtendra BL 200**  
High Performance Biodiesel Antioxidant

40% Active

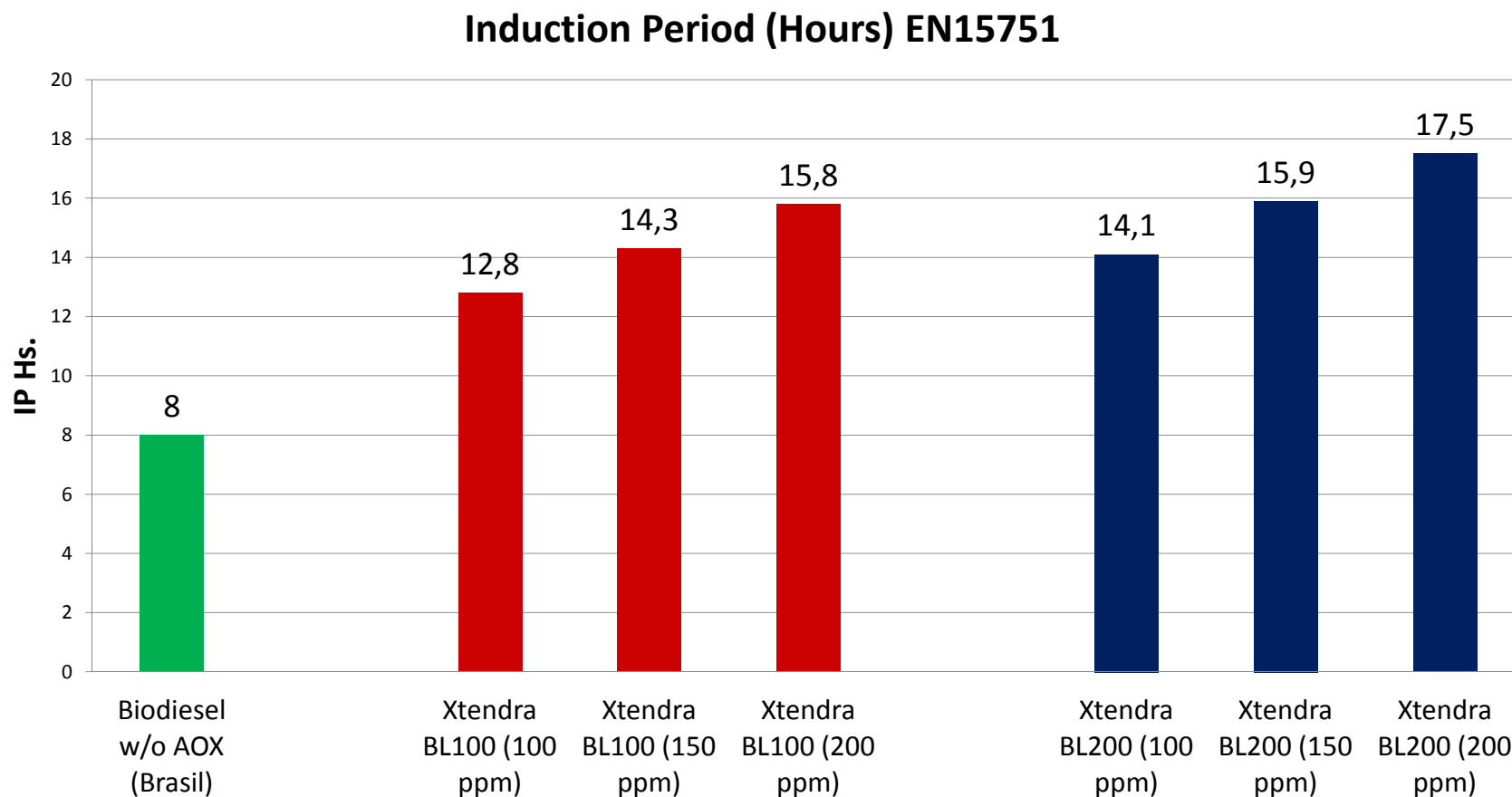
# Xtendra BLENDS FOR BIODIESEL



- Low viscosity blend, fluid and stable even at low temperature.
- Not dangerous goods according to UN.
- Safe solvents composition. Not flammable and low toxicity.
- Low evaporation rate.
- Mainly TBHQ (Tert-butylhydroquinone) and metal chelator based formulations.
- Easy to apply metering from an IBC container (or drum) to the process pipeline or in a batch mixed tank.
- No Harm Test approved - AGQM (Biodiesel Quality Work Management Group)
- EPA registred (Environmental Protection Agency) from USA.

# Xtendra BL - PERFORMANCE

Biodiesel from  
90% Soybean  
Oil + 10%  
Animal Fat

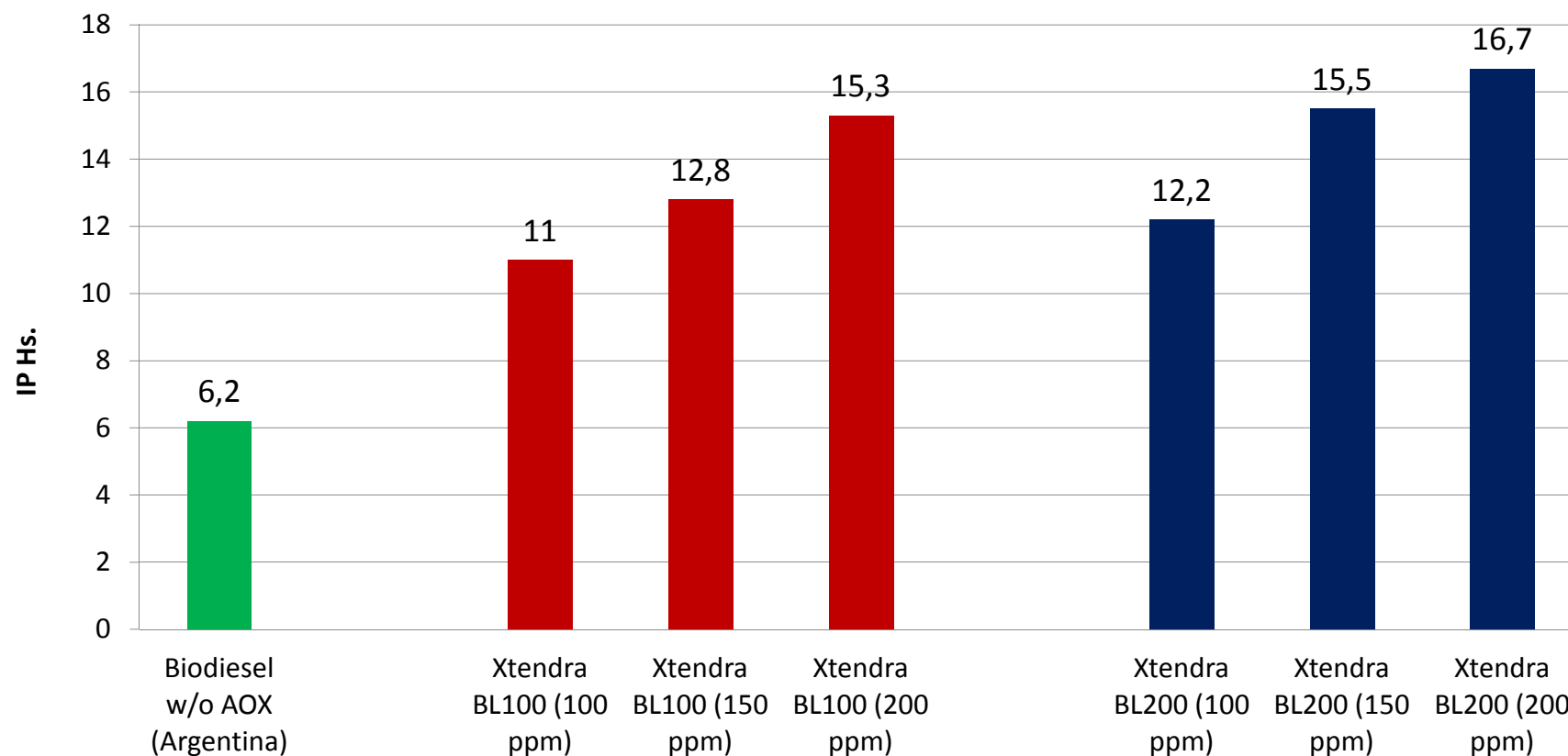




# Xtendra BL - PERFORMANCE

Biodiesel from  
100% Soybean  
Oil

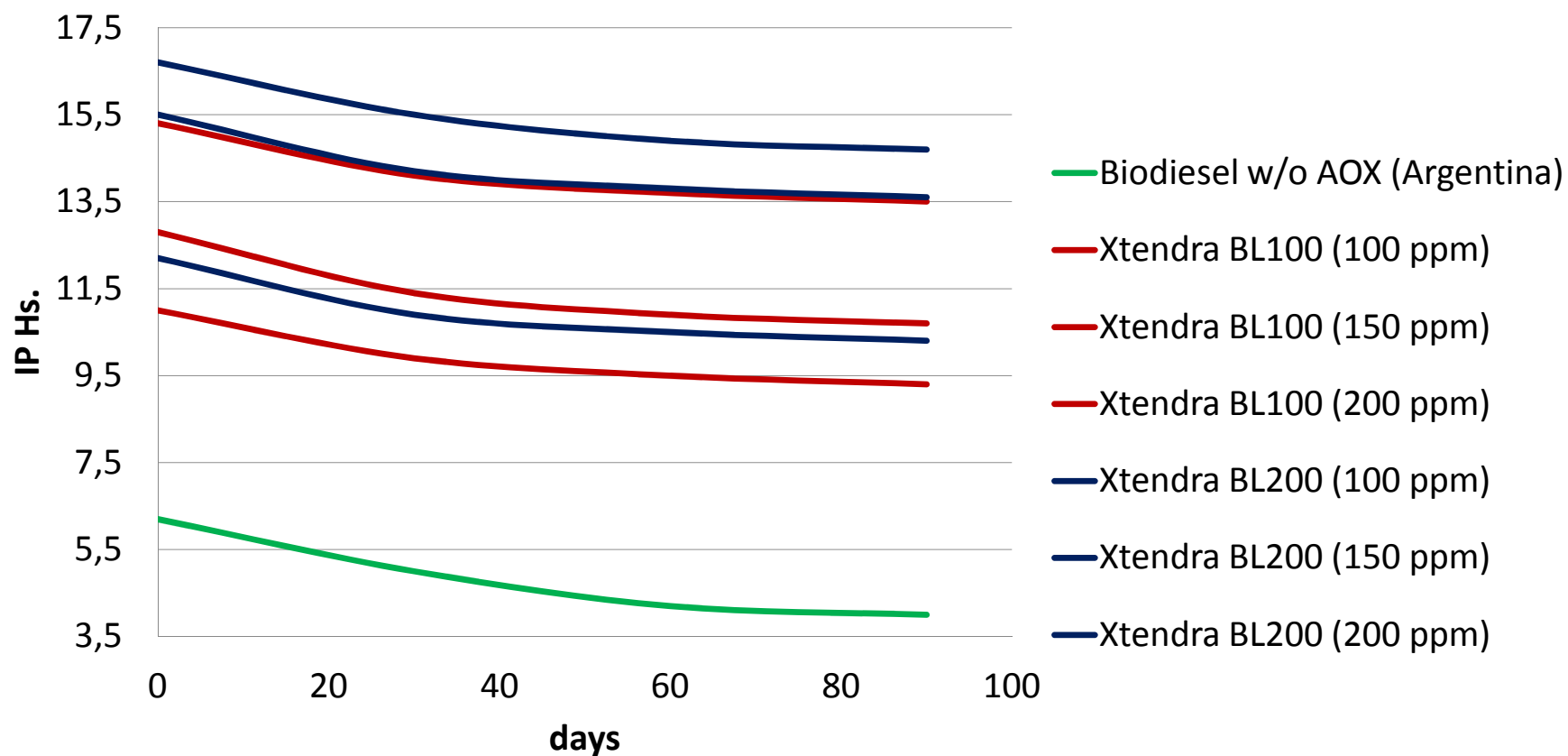
## Induction Period (Hours) EN15751



# Xtendra BL - PERFORMANCE

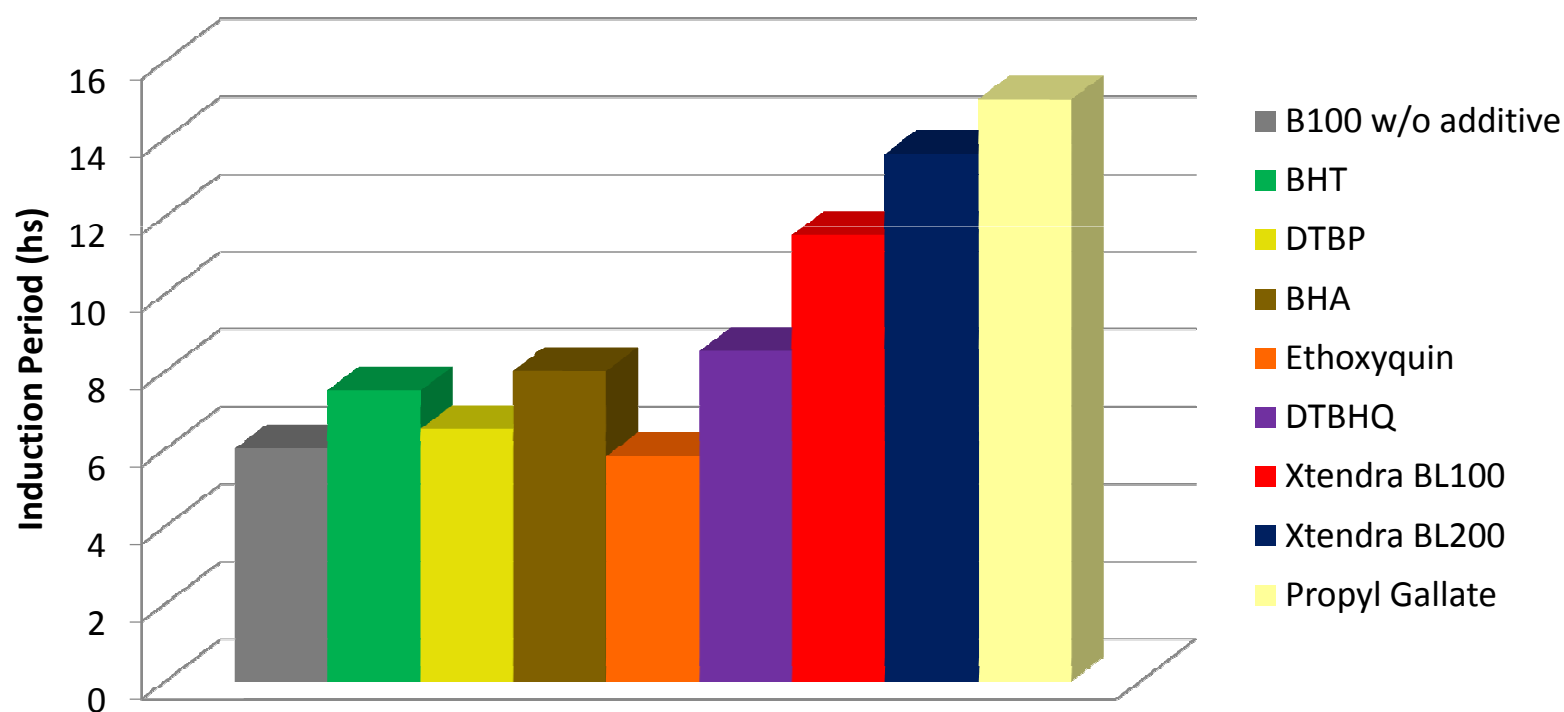
Induction Period decay along time

Biodiesel from  
100% Soybean  
Oil



# Performance of different additives

**Rancimat test of different Antioxidants treated at 200ppm over Soy based Biodiesel**



# TBHQ pure vs. BLENDS

➤ Compared to pure TBHQ powder the performance results can be similar compared to the blend.

The disadvantages of TBHQ powder are:

- the poor TBHQ solubility in the FAME
- the heating cost of FAME
- the lack of TBHQ due to poor mixing and integration in the FAME

The blend advantages:

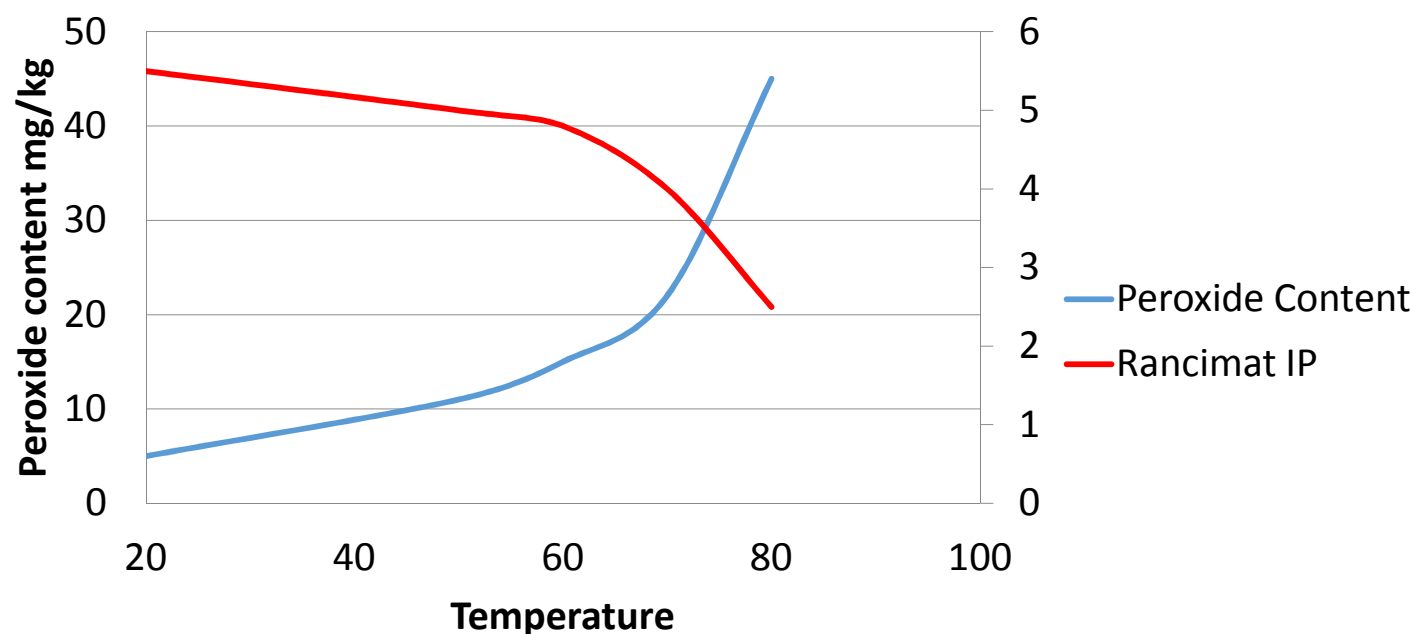
- the simplicity of blends application
- energy saving
- the less labor and less staff attention
- possibility to dose automatically



# Application Temperature

➤ Normally the trend curve of peroxides and stability when biodiesel is heated in a lab stove is like this:

**Temperature impact on Peroxides and Rancimat**  
**Induction Period**



# NO HARM TEST - AGQM

## No Harm Test and Relative efficiency

AGQM (Biodiesel Quality Work Management Group) is an independent association based in Germany which certifies quality standards in the Biodiesel industry.



### 1) Minimum Requirements

- ✓ Increase in oxidation stability 9 hs min, with the recommended dosage.
- ✓ Ash content <2 mg/kg
- ✓ Flash Point >100°C
- ✓ Interaction with other AOX Pass

**2) Nozzle Fouling Test (XUD9 test according to CEC F-23-01) <67%**

**3) Filtration test according to DGMK 663 <twice filtration time of standard**

**4) Test for engine oil compatibility according to DGMK 531-1 <twice filtration time of standard**

**5) Evaluation of the Relative Efficiency of Oxidation Stabilizers against BHT**





Thank You

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