



## **Clear mXt Dyno Test with Diesel and Biodiesels**

**Testing Completed on December 19<sup>th</sup> 2006**

## **Introduction**

The purpose of this test was to evaluate the efficiency of Clear mXt when added to Biodiesel. A DYNO horsepower test was used to monitor the power output of the vehicle both before and after adding Clear mXt. Tests carried out with both diesel and Biodiesel yielded positive results. This test was commissioned by TK Fuels Europe.

## **Test conditions**

### **Vehicle**

Truck model: ISUZU, DIRECT INJECTION TURBO, D-MAX 2500

Truck licence: 6214, Bangkok

Mileage: 95,460 Kms

### **Source of Biodiesel:**

Biodiesel samples were collected from various sources in Thailand.

Biodiesel 1 Methyl ester from palm oil B100, from Thai Biodiesel Oil Company.

Biodiesel 2 Methyl ester from palm oil B100, from the Sahakon Krabi Local Community.

DYNO Test horsepower testing garage: at Stryder Performance Tuning, Bangkok

The fuel feed systems was setup specifically for the tests so that the small samples of test fuel could be swapped out. This was by design so that residual fuel in the main tank did not have to be taken into consideration.

Set up the DYNO test, run the DYNO tests on varied type of fuel samples

Take results and discussions (Technician from Germany)

## Results

All figures are in SAE power

Speed in km/h >>	60	70	80	90	100	110	Average	% Change with Clear mXt
<b>Mineral Diesel 100%</b>	40	44	45	49	55	61	<b>49.00</b>	
<b>Diesel + Clear mXt</b>	42	47	50	55	60	64	<b>53.00</b>	<b>8.16</b>
<b>Biodiesel1</b>	32	40	43	45	51	55	<b>44.33</b>	
<b>Biodiesel1 + Clear mXt</b>	38	43	45	52	56	59	<b>48.83</b>	<b>10.15</b>
<b>Biodiesel2</b>	38	42	46	50	53	56	<b>47.50</b>	
<b>Biodiesel2+Clear mXt</b>	42	46	48	53	57	60	<b>51.00</b>	<b>7.37</b>

TYPE OF FUEL	Speed (KMs/HR)	Max SAE POWER (PS)
Diesel 100%	114	62.7
Diesel + Clear mXt	113.2	65.8
Biodiesel1	111	56.9
Biodiesel1 + Clear mXt	113	60.8
Biodiesel2	112.5	59.2
Biodiesel2 + Clear mXt	113	61.4

## Conclusion

The DYNO test results clearly indicate an improvement in horsepower when Clear mXt is added to both diesel and Biodiesel. This corroborates laboratory tests which show Clear mXt breaking down fuel clusters. The extra fuel that is available to react with oxygen in the combustion chamber results in the increases shown in the results giving an on average 8.6 % increase in power with Clear mXt on average across all type of fuel.