

# PRODUCTBLAD

## DIESEL HVO100 (EN15940)

Property	Unit	Minimum	Maximum	Test method	
Appearance at 25 °C		Clear & bright			
Cetane number	-	>70,0	>70,0	EN ISO 5165	
Cetane index	-	>60,0	-	EN ISO 4264	
Density at 15 °C	kg/m <sup>3</sup>	780,0	765,0 - 800,0	EN ISO 12185	
Polycyclic aromatic hydrocarbons	% m/m	<0,1	-	EN ISO 12916	
Sulfur content	mg/kg	<5,0	<5,0	EN ISO 20846	
Flash Point	°C	>61,0	>55,0	EN ISO 3104	
Carbon residue on 10% distillation residue	% m/m	<0,1	<0,30	EN ISO 10370	
Ash content	% m/m	<0,001	<0,01	EN ISO 6245	
Water content	mg/kg	<200	<200	EN ISO 12937	
Total contamination	mg/kg	<10	<24	En 12662	
Copper strip corrosion (3 h at 50 °C)	rating	class 1		EN ISO 12662	
Fatty acid methyl ester (FAME) content	% v/v	01	<7,0	EN 14078	
Total aromatics content	% m/m	<1,0	<1,0	EN 12916 SIS155116	
Oxidation stability	g/m <sup>3</sup>	<25	<25	EN ISO 12205	
Lubricity, corrected wear scare diameter (wsd 1,4) at 60 °C	µm	<460 <sup>2</sup>	<460	EN ISO 12156-1	
Viscosity at 40 °C	mm <sup>2</sup> /s	2,00 - 4,00	2,00 - 4,50	EN ISO 3104	
Distillation	% (v/v) recovered at 250 °C	% v/v	<50,0	<65,0	EN ISO 3405
	% (v/v) recovered at 350 °C	% v/v	>85,0	>85,0	
	95% (v/v) recovered at	°C	<320	<360	EN 23015
	CFPP	°C	<-20	<-20/<-10/<0 <sup>3</sup>	EN 116

(1) Contains maximally trace amounts of FAME

(2) Contains lubricity additive. Without additive lubricity is approximately 650 µm

(3) Dependent on time of year (winter / intermediate)

# PRODUCTBLAD

## DIESEL HVO50 (EN15940)

Property	Unit	Minimum	Maximum	Test method	
Appearance at 25 °C		Clear & bright			
Cetane number	-	63,0	>51,0	EN ISO 5165	
Cetane index	-	69,0	>46,0	EN ISO 4264	
Density at 15 °C	kg/m <sup>3</sup>	807,0	800,0 - 845,0	EN ISO 12185	
Polycyclic aromatic hydrocarbons	% m/m	2,5	<8,0	EN ISO 12916	
Sulfur content	mg/kg	5,0	<10,0	EN ISO 20846	
Flash Point	°C	71,0	>55,0	EN ISO 2719	
Carbon residue on 10% distillation residue	% m/m	<0,10	<0,30	EN ISO 10370	
Ash content	% m/m	<0,010	<0,010	EN ISO 6245	
Water content	mg/kg	50	<200	EN ISO 12937	
Total contamination	mg/kg	<12	<24	EN 12662	
Copper strip corrosion (3 hrs. at 50 °C)	Rating	Class 1		EN ISO 2160	
Fatty acid methyl ester (FAME) content	% v/v	<0,05	<7,0	EN 14078	
Oxidation stability	g/m <sup>3</sup>	<1	<25	EN ISO 12205 EN 15751	
Lubricity, corrected wear scare diameter (wsd 1,4) at 60 °C	µm	385	<460	EN ISO 12156-1	
Viscosity at 40 °C	mm <sup>2</sup> /s	2,800	1,500 - 4,000	EN ISO 3104	
Distillation	% (v/v) recovered at 180 °C	% v/v	<10,0	<10,0	EN ISO 3405
	% (v/v) recovered at 340 °C	% v/v	>95,0	>95,0	EN ISO 3405
	Cloudpoint	°C	-11	<-10	EN 23015
	CFPP	°C	-30	<-20	EN 116

# PRODUCTBLAD

## DIESEL HVO20 (EN590)

Property	Unit	Minimum	Maximum	Test method	
Appearance at loading temperature	Visual	Clear / Bright Haze rating $\leq$ 1		ASTM D4176	
Cetane number	-	52,9	-	EN ISO 5165	
Cetane index	-	46,0	-	EN ISO 4264	
Density at 15 °C	kg/m <sup>3</sup>	820,0	845,0	EN ISO 3675	
Polycyclic aromatic compounds	% m/m	-	8,0	EN ISO 12916	
Sulfur content	mg/kg	-	10,0	EN ISO 20846	
Manganese content	mg/l	-	2,0	EN 16576	
Flash Point	°C	>55	-	EN ISO 22719	
Carbon residue on 10% distillation residue	% m/m	-	0,3	EN ISO 10370	
Ash content	% m/m	-	0,0	EN ISO 6245	
Water content	mg/kg	-	200	EN ISO 12937	
Total contamination	mg/kg	-	24,0	EN ISO 12662	
Copper strip corrosion (3 hrs. at 50 °C)	Rating	Class 1		EN ISO 2160	
Oxidation stability	g/m <sup>3</sup>	-	25	EN ISO 12205	
When FAME content > 2% V/V	h	20	-	EN 15751	
Lubricity, corrected wear scare diameter (wsd 1,4) at 60 °C	$\mu$ m	-	460	EN ISO 12156-1	
Viscosity at 40 °C	mm <sup>2</sup> /s	2,0	4,5	EN ISO 3104	
Fatty acid methyl ester (FAME) content ****	% v/v	-	0,0	EN ISO 14078	
Distillation	% (v/v) recovered at 250 °C	% v/v	-	<65	EN ISO 3405
	% (v/v) recovered at 350 °C	% v/v	85	-	
	95% (v/v) recovered at	°C	-	360	
CFPP	Summer*	°C	-	-5	EN 116
	Intermediate**	°C	-	-11	
	Winter***	°C	-	-20	
Cloud Point	Summer*	°C	-	4	EN 116
	Intermediate**	°C	-	0	
	Winter***	°C	-	-5	

\* Summer: May 1st - October 15th

\*\* Intermediate: October 16st - November 15th / March 1st - April 30th

\*\*\* Winter: November 16th - Februari 28th

\*\*\*\* Diesel HVO20 at Geertruidenberg Fame < 7%.

**Edition: 2020**

**Version: 1**