Vital Diesel V-21 Specifications

CHARACTERISTICS	Method	Specification V-21
Aspect	-	(1)
Density at 20°C (Kg/m^3)	ASTM D-4052	890 – 920
Viscosity at 40°C (mm^2/s)	ASTM D-445	≤ 22,0
Water and sediments, max. (%vol.)	ASTM D-2709	0,060
Total contamination, max. (mg/Kg)	EN 12662	≤ 24,0
Flash Point, min. (°C)	ASTM D-93	≥ 38,0
Ester content % of mass	EN 14103	≥ 20,0
Distillation, 90% vol. recouped (°C)	ASTM D-1160	380
Carbon residue, 100% distilled (% max.)	ASTM D- 189 ASTM D-4530 micro	0,30
Sulfated ash, max. (% of mass)	ASTM D- 874	0,020
Total sulphor, max (%)	ASTM D- 4294	0,020
Sodium + potassium, max. (mg/Kg)	EN 14108 / 14109 (EAA)	10,0
Calcium + magnesium, max. (mg/Kg)	Atomic absorption (Ref. EN 14538)	10,0
Phosphor (mg/Kg)	Atomic absorption (Ref. EN 14107)	≤ 10
Copper corrosion, 3h a 50°C, max.	ASTM D- 130	1,0
Cetane number	ASTM 613	≥ 40
Cold Filter Plugging Point, max. (°C)	ABNT NBR 14747 & ASTM D 6371	(2)
Acidity, max. (mg KOH/g)	ASTM D-664	≤ 2,0
Free glycerin, max (% of mass)	ASTM D 6584	0,02
Total glycerin, max. (% of mass)	ASTM D 6584	≥ 4
Monoglycerides % of mass	ASTM D 6584	≥ 2,0
Diglycerides % of mass	ASTM D 6584	≥15
Triglyceride % of mass	ASTM D 6584	≤ 55
Index of ethanol % of mass	EN 14110	≤ 1,2
Iodine number, max.	EN 14111	130
Oxidation stability at 110°C, min.(h)	EN 14112	6,0
Water - Karl Fischer, max. (ppm)	-	≤ 600,0

1) Clear and without impurities
2) Following specification of National Agency of Petroleum (Brazil) regarding automotive diesel