

ANP ANHYDROUS FUEL ETHANOL - AEHC
 (BRAZILIAN DOMESTIC SPECIFICATION)

SPECIFICATIONS TABLE
 FUEL ANHYDROUS ETHYL ALCOHOL
 (NR) REGULATION NO. 36 OF DECEMBER 6, 2005
 AGENCIA NACIONAL DE PETROLEO - ANP

CHARACTERISTICS	UNIT	SPECIFICATION	METHOD	
			ABNT / NBR	ASTM (1)
Aspect	-	(2)		Visual
Color	-	(3)		Visual
Total Acidity (as acetic acid), max	mg/l	30	9866	D 1613
Electrical Conductivity, max	µS/m	500	10547	D 1125
Specific mass at 20° C, max	kg/m ³	791.5	5992	D 4052
Alcoholic Strength, min	% wt.	99.3	5992	D 5501
Hydrocarbons content, max (5) (7)(NR)	% vol.	3.0	13993	D 1722
Ethanol content, min (6)	% vol.	99.3	-	D 5501
Copper, max (8)(9)(NR)	mg/kg	0.07	10893	D 1688

Note:

- (1) Can be applied as alternative methods for the evaluation of characteristics in the cases of alcohol import, exception to the method ASTM-D-4052, which can always be used as alternative method for the determination of specific mass.
- (2) Clear and free from impurities.
- (3) Colorless to yellowish before the addition coloring, whose application is permitted in the maximum of "Sudan Red" (Orange) color at a limit of 15mL/m³, exception to the blue color, restricted to aviation gasoline. (NR)
- (4) Not Applicable.
- (5) Limit permitted at the import and distribution, not being demanded for the analysis for the issuance of Quality Certificate by the producers. (NR).
- (6) Required when the alcohol is not produced from fermentation process.
- (7) Allowed 3.0% vol. of hydrocarbons in anhydrous ethanol imported for producers.
- (8) Measured only when contamination is suspected.
- (9) Shall always be determined when the product has been transported or produced where the copper equipment or lines are used or alloys are made of copper. (NR).

ABNT: ASSOCIAÇÃO BRASILEIRA DE NORMAS TECNICAS (BRAZILIAN ASSOCIATION OF TECHNICAL STANDARDS)
 NBR: NORMA BRASILEIRA (BRAZILIAN STANDARD)
 NR: NORMA REGULAMENTADORA (REGULATION STANDARD)

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