



# Reference Fuels: Diesel Cloud Point

Changed standard with UN R154



# Reference Fuels: Diesel Cloud Point

Diesel (B7) Reference Fuel properties are described within...

**EU**

Paragraph 2. of Annex IX to (EU) 2017/1151

**UN**

Paragraph 5.4. of Annex B3 to UN-R154 for Level 1A  
Paragraph 1.2. of Annex 10 to UN-R83/07 and 06

For the “Cloud Point”, the reference test method differs between UN-R154, UN-R83/07, UN-R83/06 and (EU) 2017/1151 :

Fuel	Regulation	Parameter	Unit	Limits		Test Method
				Minimum	Maximum	
Diesel B7	UN-R154	<b>Cloud Point</b>	°C	-	-10	<b>EN 116</b>
Diesel B7	UN-R83/07	Cloud Point	°C	-	-10	EN 23015
Diesel B7	UN-R83/06	Cloud Point	°C	-	-10	EN 23015
Diesel B7	2017/1151	Cloud Point	°C	-	-10	EN 23015

However, EN 116 describes the test method for the “Cold Filter Plugging Point (CFPP)”, not the “Cloud Point (CP)”.

- CP\*: “Temperature below which paraffin wax in diesel or biowax in biodiesels forms a cloudy appearance”
- CFPP\*\*: “Lowest temperature at which a given volume of diesel passes through a standardized filtration device in a specified time when cooled under certain conditions”

As EN 23015 was withdrawn / replaced the correct test method **should be EN ISO 3015, not EN 116.**

\*: [https://en.wikipedia.org/wiki/Cloud\\_point](https://en.wikipedia.org/wiki/Cloud_point)

\*\* : [https://en.wikipedia.org/wiki/Cold\\_filter\\_plugging\\_point](https://en.wikipedia.org/wiki/Cold_filter_plugging_point)



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## Specifications for „Cloud Point“:

Fuel	Regulation	Parameter	Unit	Limits		Test Method
				Minimum	Maximum	
Diesel B7	UN-R154	Cloud Point	°C	-	-10	EN 116
Diesel B7	UN-R83/07	Cloud Point	°C	-	-10	EN 23015
Diesel B7	UN-R83/06	Cloud Point	°C	-	-10	EN 23015
Diesel B7	2017/1151	Cloud Point	°C	-	-10	EN 23015

## Specifications for „Cold Filter Plugging Point“:

Fuel	Regulation	Parameter	Unit	Limits		Test Method
				Minimum	Maximum	
Diesel B5	UN-R83/07	CFPP	°C	-	-5	EN 116
Diesel B5	UN-R83/06	CFPP	°C	-	-5	EN 116
Diesel / B0 / B5	UN-R83/05	CFPP	°C	-	-5	EN 116