

NAME: REQUIREMENTS FOR GASEOUS FUELS FOR TEDOM ENGINES

1. DETERMINATION OF THE SCOPE OF VALIDITY

This Regulation determines requirements for the gaseous fuels specified for stationary gas engines TEDOM, if not in the technical specifications provided otherwise.

2. MINIMUM REQUIREMENTS FOR GASEOUS FUELS - 1

Fuel properties	Limit value	Units	Note
Chlorine Cl	<100	mg/10 kWh	
Fluorine F	<50	mg/10 kWh	
Chlorine + Fluorine Cl+F	<100	mg/10 kWh	
Ammonia NH ₃	<30	mg/10 kWh	
Sulphur S (total)	<2200	mg/10 kWh	
Hydrogen sulfide H ₂ S	<0.15	vol.%/10 kWh	
Particles / dust (3 - 10 µm)	<10	mg/10 kWh	
Oil vapours (>C ₅ , including tar)	<3250	mg/10 kWh	
Silicon (organic) Si	<10	mg/10 kWh	

				SUPERSEDES THE REGULATION:
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3. MINIMUM REQUIREMENTS FOR GASEOUS FUELS - 2

Fuel properties	Limit value	Units	Note
Calorific value	>5	kWh/m _n ³	
Calorific value change rate	<5	%/min	
CO ₂ /calorific value	<10	vol. %/kWh/m _n ³	
Methane content CH ₄	>40	%	
Methane number	>80	applicable for standard specification	
Relative humidity	<80	%	at lowest temperatures
Gas temperature	10-50	°C	

4. MINIMUM REQUIREMENTS FOR GASEOUS FUELS - 3

Fuel properties	Limit value	Units	Note
Minimum pressure at gas route inlet	20	mbar	
Max. gas pressure change in case of step by step change of output from 0 to 100 %		10 %	The indication in % is related to the gas pressure value, which the device was adjusted to
Max. gas pressure change (fluctuation) in the steady state		2,5 %	
Gas pressure change rate		1 %/sec	
Condensation is permitted neither in the fuel route nor in the intake manifold			

5. NOTES

Applied units - mg/m_n³ CH₄

m_n³ – standard cubic meter (relative humidity 0%, pressure 101,325 kPa, temperature 0°C)

CH₄ – related to 100% methane