

Calculation rules for limited components WLTP

ISC (vehicle mileage > 15tkm)

without Ki:	pollutant_x	= result to be compared with emission limit
Ki additiv:	$\text{pollutant}_x + \text{Ki}_x$	= result to be compared with emission limit
Ki multiplikativ:	$\text{pollutant}_x * \text{Ki}_x$	= result to be compared with emission limit
For HC + Nox:		
without Ki:	HC + NOx	
Ki additiv:	$((\text{HC} + \text{Ki}_{\text{HC}}) + (\text{NOx} + \text{Ki}_{\text{NOx}}))$	
Ki multiplikativ:	$((\text{HC} * \text{Ki}_{\text{HC}}) + (\text{NOx} * \text{Ki}_{\text{NOx}}))$	

COP (vehicle mileage < 200km)

ohne Ki, DF additiv:	$\text{pollutant}_x * \text{EvC-factor} + \text{DF}_x$	= result to be compared with emission limit
ohne Ki, DF multiplikativ:	$\text{pollutant}_x * \text{EvC-factor} * \text{DF}_x$	= result to be compared with emission limit
Ki additiv, DF additiv:	$(\text{pollutant}_x + \text{Ki}_x) * \text{EvC-factor} + \text{DF}_x$	= result to be compared with emission limit
Ki additiv, DF multiplikativ:	$(\text{pollutant}_x + \text{Ki}_x) * \text{EvC-factor} * \text{DF}_x$	= result to be compared with emission limit
Ki multiplikativ, DF additiv:	$\text{pollutant}_x * \text{Ki}_x * \text{EvC-factor} + \text{DF}_x$	= result to be compared with emission limit
Ki multiplikativ, DF multiplikativ:	$\text{pollutant}_x * \text{Ki}_x * \text{EvC-factor} * \text{DF}_x$	= result to be compared with emission limit
Für HC + Nox:		
Ki s.o. , DF additiv:	after Ki-calculation + $\text{DF}_{\text{HC+NOx}}$	
Ki s.o. , DF multiplikativ:	after Ki-calculation * $\text{DF}_{\text{HC+NOx}}$	



Calculation rules for CO2 WLTP

ISC (vehicle mileage > 15tkm)

without Ki:	$\text{CO2 result RSSEE corrected} * \text{FCF}$
Ki additiv:	$(\text{CO2 result RSSEE corrected} + \text{Ki}) * \text{FCF}$
Ki multiplikativ:	$\text{CO2 result RSSEE corrected} * \text{Ki} * \text{FCF}$

COP (vehicle mileage < 200km)

without Ki:	$\text{CO2 result RSSEE corrected} * \text{EvC-factor} * \text{FCF}$
Ki additiv:	$(\text{CO2 result RSSEE corrected} + \text{Ki}) * \text{EvC-factor} * \text{FCF}$
Ki multiplikativ:	$\text{CO2 result RSSEE corrected} * \text{Ki} * \text{EvC-factor} * \text{FCF}$

Ki-factor:	correction factor for a periodical working exhaust-after-treatment system
RSSEE-corrected:	CO2-result energy corrected (from measurement protocol)
EvC-factor:	correction factor for the evolution of the engine (WLTP = 0,98 for CO2)
FCF-factor:	factor for calculating the 23°C result to 14°C

