

Vehicle Family and Worst Case considerations in the WLTP Approval Process

Process	Family Parameters	Family Parameter criteria	Best/Worst Case required (Y/N)	Best/worst case parameters
Define group of vehicle specifications to be approved	Fuel type Engine capacity No of cylinders Body style ...	One value ± [30%] One value [?] ...	N	N/A
Define group of vehicle specifications for (each) road load determination test	Driven wheels Transmission	FWD/RWD/4WD Manual/Auto	Y – b/w (optional)	Vehicle mass Total aerodynamic drag Tyre rolling resistance class
Define group of vehicle specifications for (each) criteria emissions test	Fuel type Engine capacity No of cylinders Emission control system Transmission	One value ± [30%] One value One value One value	Y - w	Equivalent inertia Total aerodynamic drag
Define group of vehicle specifications for (each) fuel/energy consumption test	Fuel type Engine capacity No of cylinders Emission control system Transmission Transmission ratios	One value ± [30%] One value One value One value ± [8%]	Y – b/w (optional)	Gearbox mode(s)
Define group of vehicle specifications for (each) electric range determination	EV type (HEV, BEV, FCEV) External charging (OVC, NOVC) ReESS capacity	One value One value ± [x%]	Y - w	...
Define group of vehicle specifications for (each) Periodically Regenerating System regeneration factor (Ki) test	Combustion process PRS construction PRS type and principle PRS additive dosage system PRS volume PRS location (temp.)	One value One value One value One value ± [10%] ± [50°C @ 120 km/h]	Y - w	...
Define group of vehicle specifications for (each) durability test				
Define group of vehicle specifications for (each) OBD demonstration test				
Define group of vehicle specifications for (each) low temperature test				
Define group of vehicle specifications for (each) evaporative emissions test				
Define group of vehicle specifications for (each) conformity of production test				
Define group of vehicle specifications for (each) in-service conformity test				