

Polestar Polestar 2

2022





ASSISTANCE COMPETENCE



53%

SAFETY BACKUP





SPECIFICATION

SYSTEM NAME	Pilot Assist
Version Tested	Software version P1.8 or later
STANDARD ACTIVE SAFETY SYSTEMS	
AEB Car-to-Car	
AEB Vulnerable Road User	
Lane Support Systems	
Speed Assistance Systems	

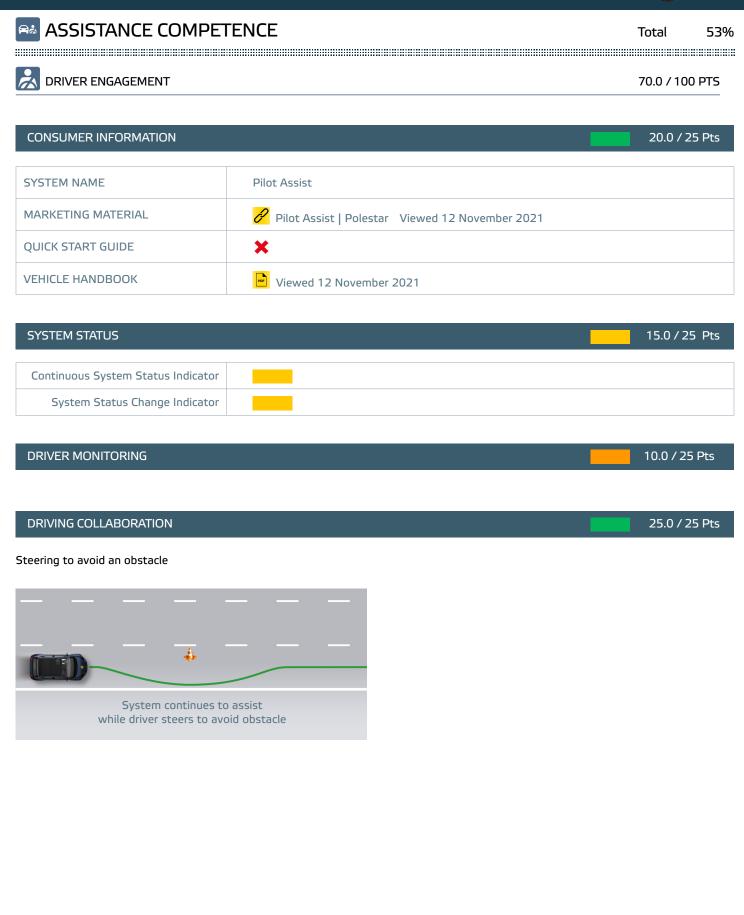
Comments

Polestar's system name Pilot Assist accurately portrays system functionality. The promotional material and the handbook correctly indicate the limitations of the system capabilities. Status information is clear but the Polestar does not offer a head-up display showing the system status in the driver's direct line of sight. Polestar did not equip the vehicle with an internal camera and relies only on steering wheel input for Driver Monitoring. The system balances driver steering input with lane guidance, promoting co-operative driving.

Polestar combines map-based speed limit information with real time camera inputs to manage fixed, variable and temporary speed limit signs. The system cannot adapt speed for upcoming road features such as curves and junctions. The Polestar 2 avoids a collision with moving vehicles in the ACC test scenarios but fails to respond to stopped cars. AEB interventions provide limited additional support in critical situations. Polestar upgraded the steering support offered by the Polestar 2 in late 2021. Now, the driver is supported through the S-Bend and stays centred in the lane at all but the lowest test speed. The vehicle has an Active Blindspot system designed to prevent lane changing into adjacent vehicles. A lane-change assist function is not available. In case of an unresponsive driver, the Polestar performs a controlled stop in lane. If the radar or camera are blocked the car provides a timely warning and prevents system activation.

The Polestar 2 provides a moderate level of Vehicle Assistance with a good level of Driver Engagement and a good Safety Back-up resulting in a Good and balanced system.





MARGINAL

WEAK

GOOD

ADEQUATE

POOR





Total

53%



VEHICLE ASSISTANCE

53.6 / 100 PTS

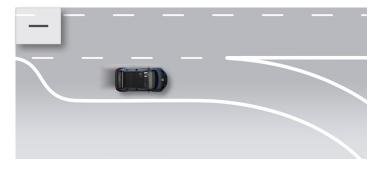
SPEED ASSISTANCE	2.8 / 25 Pts

SPEED ASSIST SYSTEMS

Vehicle response to fixed Speed limits	No respons
Vehicle response to variable Speed limits	No respons

ROAD FEATURES

Speed adaptation for corners



Speed adaptation for round-abouts



Speed adaptation for junctions



FITTED TO THE VECHILE

NOT AVAILABLE



ASSISTANCE COMPETENCE

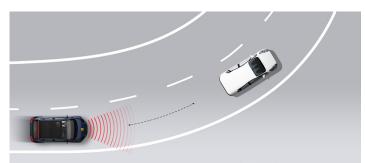
Total

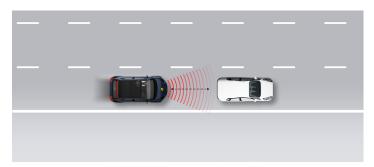
53%

ADAPTIVE CRUISE CONTROL PERFORMANCE

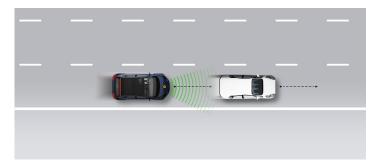
20.9 / 40 Pts

Approaching a stationary car

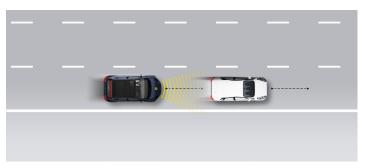




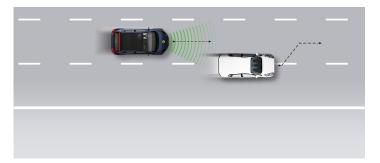
Approaching a slower moving car



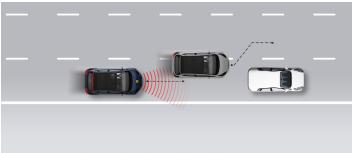
Approaching a braking car



Car cutting-in in front



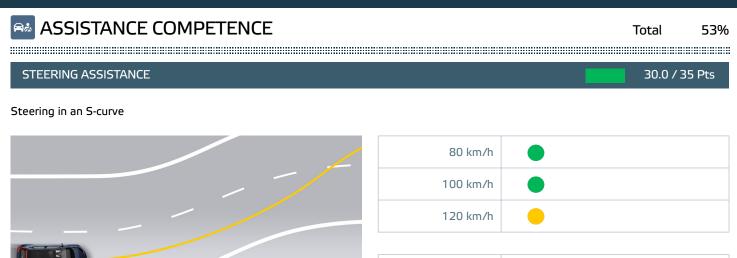
Car cutting-out in front



UNDERTAKE PREVENTION	
Undertake prevention at speeds over 90 km/h	×

ADAPTIVE CRUISE CONTROL AUTO-RESUME	
Assistance maintained after coming to a full stop	
System assistance maintained by	Automatic resume within 5s of stop and driver input required over 5s





120 km/h

Lane Change Assist



SAFETY BACKUP

Total

88%

SYSTEM FAILURE 25.0 / 25 Pts

	ENGAGEMENT	WARNING		
SENSOR BLOCKED AT START-UP				
Camera	System can NOT be engaged after a 5 minute drive	Visual Warning within 5 minutes after sensor blocking		
Radar	System can NOT be engaged after a 5 minute drive	Visual Warning within 5 minutes after sensor blocking		
SENSOR BLOCKED WITH VEHICLE IN MOTION, SYSTEM INACTIVE				
Camera	System can NOT be engaged after a 5 minute drive	Visual Warning within 5 minutes after sensor blocking		
Radar	After a 5 minute drive	After sensor blocking		
SENSOR BLOCKED WITH VEHICLE IN MOTION, SYSTEM ACTIVE				
Camera	Within 2 minutes after blocking	After sensor blocking		
Radar	After sensor blocking	After sensor blocking		

UNRESPONSIVE DRIVER INTERVENTION

20.0 / 25 Pts

time

Hands Off Warning Timeline





0



SAFETY BACKUP

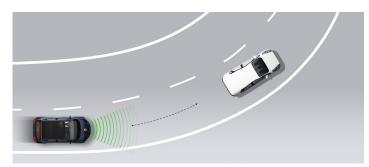
Total

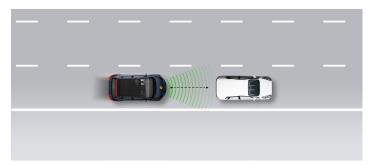
88%

COLLISION AVOIDANCE

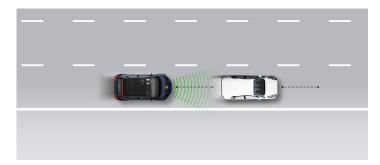
43.2 / 50 Pts

Approaching a stationary car

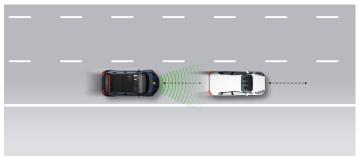




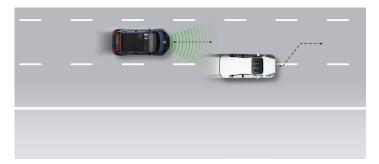
Approaching a slower moving car



Approaching a braking car



Car cutting-in in front



Car cutting-out in front

