


**Replacing coolant.
Observe coolant composition**

All models

Revision: Engines 111, 120 added.

On separate order

Work description, see Repair Instructions Gr. 20

 The expansion tank or radiator cap should **only be opened at coolant temperatures below 90 °C.**

Coolant composition

50 % water by vol. (Specifications for Service Products, sheet 310),

50 % antifreeze/corrosion inhibitor by vol.
(Specifications for Service Products, sheet 310, 325.0).

Antifreeze table in liters

Model	Engine	Coolant system capacity	Antifreeze/corrosion inhibitor	
			- 37 °C (50 % by vol.)	- 45 °C (55 % by vol.)
107	103	8	4	4.4
	110	12	6	6.5
	116.96	12.5	6.25	7
	117.96	13.5	6.75	7.5
123	102	8.5	4.25	4.75
	110, 123, 615, 616	10	5	5.5
	617.91	11	5.5	6
	617.95	12.5	6.25	7

2080

Model	Engine	Coolant system capacity	Antifreeze/corrosion inhibitor up to -45 °C	
			-37 °C (50 % by vol.)	-45 °C (55 % by vol.)
124	102	8.5	4.25	4.75
		9.5 ¹⁾	4.75	5.25
	103, 104 ²⁾	9.0	4.5	5
		9.5 ¹⁾	4.75	5.25
	111	8.5	4.25	4.75
	119	15.5	7.75	8.5
	601	8.5	4.25	4.75
		9 ¹⁾	4.5	5
	602, 603.91	9 ³⁾	4.5	5
		9.5	4.25	5.25
603.96	10	5	5.5	
126	103	8	4	4.4
	110	10.5	5.25	5.75
	116.96	12.5	6.25	7.5
	117.96	13.5	6.75	7.5
	603.96/970	10	5	5.5
	617.95	12	6	6.5
	129	103, 104 ²⁾	11.5	5.75
119		15.5	7.75	8.5
120		15.5	7.75	8.5
140	104	14.5	7.25	8
	119.970/971	16.5	8.25	9
	120	18.5	9.25	10.25
	603.971	10	5	5.5
201	102.91/92/93/96 102.985 601.911/921	8.5	4.25	4.75
	103.942	9	4.5	5
		9.5 ¹⁾	4.75	5.25
	102.983/99 602.911, 602.96	8	4	4.5

- ¹⁾ With air conditioner/automatic climate control.
²⁾ With oil/water heat exchanger approx. 0.25 l more.
³⁾ Engine 602 without air conditioner/automatic climate control.

Tightening torques in Nm

Radiator drain plug model 107 (heavy metal radiator)	6-10
Radiator drain plug model 107 (light alloy radiator), 123, 126, 201	1.5-2 ¹⁾

¹⁾ This torque can be achieved with a disc or a coin.

Commercially available test equipment

Designation	e.g. company, order no.
Antifreeze tester Duo-Check 7182	SUN Elektrik Deutschland GmbH Auf dem Hulb 5 D-4020 Mettmann No. 010357

**Disposal of coolants**

Observe legal regulations and local waste water codes.

In Federal Republic of Germany see environmental protection catalog from MBVD/PWU.

Antifreeze/corrosion inhibitor

Antifreeze/corrosion inhibitor is used for the following reasons:

- to provide sufficient protection against corrosion and cavitation for all components
- to prevent coolant from freezing (antifreeze)
- to increase boiling point so coolant will not evaporate as quickly. At high coolant temperatures coolant loss is prevented.

A concentration of 50 % offers protection against freezing down to approx. -37 °C.

A higher concentration is only practical when the ambient temperatures are lower.

A concentration of antifreeze/corrosion inhibitor of 55 % by vol. offers protection against freezing down to approx. -45 °C. A greater concentration of antifreeze/corrosion inhibitor than 55 % by vol. reduces the protection against freezing and has a negative effect on the heat transfer.

Use only approved antifreeze/corrosion inhibitor agents (see Specifications for Service Products, sheet 325.0).

Checking coolant during operation

Before the cold season begins, check the antifreeze concentration of the coolant.

In countries with high outdoor temperatures check antifreeze/corrosion inhibitor concentration once each year.

The corrosion inhibitor in the coolant decreases during operation. The coolant becomes highly corrosive.

The maximum permissible period of use for the specified coolant in passenger car engines is **3 years**.