## HARTOL



## ANTIFREEZE G12

DESCRIPTION	ANTIFREEZE G12 is a premium quality long life coolant for cooling of petrol and diesel engines modern cars. Protect the engine against freezing, overheating, and cavitation corrosion. Produced according to the Organic Additive Technology (OAT). G12+ antifreeze is free of nitrites, amines, phosphates, silicates, borates and free 2-ethylhexanoic acid.		
APPLICATION	Recommended replacement interval: for passenger cars each 250 000 km., for commercial vehicles each 500 000 km., or every 5 years. Engine coolant is meant for use in a car cooling system up to -40 °C. Handle in accordance with vehicle manufacturer's specifications.		
SPECIFICATIONS	<ul> <li>BS 6580</li> <li>FVV HEFT R 443</li> <li>AFNOR R 15/601</li> <li>SAE J 1034</li> <li>JASO M325</li> <li>Önorm V5123</li> <li>UNE 26361-88/1</li> <li>FSD 8704</li> <li>ASTM D 3306</li> <li>ASTM D4656</li> <li>ASTM D4985</li> <li>NATO S759</li> <li>Porsche/VW/Audi/Seat/Skoda TL 774 D/F</li> <li>Mercedes MB 325.3\326.3</li> <li>Mercedes-Benz Truck DTFR 29C110\29D110</li> <li>CUMMINS CES 14603&amp;14439</li> <li>CUMMINS IS series u N14</li> <li>Ford WSS-M97B44-D</li> </ul>	<ul> <li>MAN 324 SNF</li> <li>BMW GS94000</li> <li>DAF 74002</li> <li>Deutz DQC CB-14</li> <li>Fiat 9.5523</li> <li>GM Chevrolet</li> <li>Opel-GM GMW3420</li> <li>GM Saab B0401065</li> <li>GM Saturn</li> <li>GM- Vauxhall GME L1301</li> <li>GM- Vauxhall GMW3420</li> <li>John Deere JDM H5</li> <li>Iveco 18-1830</li> <li>Renault-Nissan 41-01-001/ S type D</li> <li>Volvo Penta</li> <li>Renault Trucks 41-01-001/ Type D</li> <li>Volvo Trucks-Volvo coolant VCS</li> </ul>	

## HARTOL

**PROPERTIES** 

PROPERTIES



Appearance	Clear liquid, free from matter in suspension	Visual
<ul> <li>Donsitu at 20 °C</li> </ul>	$> 11  \text{a/cm}^3$	ASTM D
• Density at 20 C	> 1.1 g/cm	4052
<ul> <li>Freezing point</li> </ul>	-40°C	ASTM D 1177
Boiling Point	> 110°C	ASTM D 1120
• pH	7.5-11.0	ASTM D 1287
Reserve alkalinity (0,1 HCI/10 ml)	> 2,5 ml	ASTM D 1121
<ul> <li>Foaming characteristics at 88 °C</li> </ul>	45 ml / 2 s	ASTM D 1881

ANTICORROSION ASTM D1384 Glassware Corrosion Test Results:

		Weight Loss mg/ Coupon					
		Conner	Solder	Brass	Stool	Cast	Aluminu
		Соррег	Soluei	DIass	JIEEI	Iron	m
ASTM	D3306,	10	30	10	10	10	30
max		0	50	10	10	10	
Typical		1,1	1,8	0,9	0,8	-0,9	1,2

ASTM D 4340 Aluminum Corrosion under heat rejecting conditions:

	Weight Loss mg/ cm²/week
ASTM D 3306, max	1,0
Typical	0,1

COMPATIBILITY<br/>WITH OTHER<br/>COOLANTSCoolant is fully miscible with other coolants and can be safely mixed with them.<br/>However, most coolants contain a balanced compound of corrosion inhibitors.<br/>You may affect anticorrosion protection by mixing coolants with different<br/>inhibitors. Storage temperature: -40°C to +35 °C. Avoid direct sunlight!