

## TECHNICAL DATA SHEET

### Hydraulic Brake Fluid [G]LINE DOT4

Test required	Requirements	Typical results	Methods
1 Color	Colorless to amber	Colorless	Visual
2 Original Equilibrium Reflux Boiling Point, °C	min. 230°C	240°C	FMVSS 116
3 Wet Equilibrium Reflux Boiling Point, °C	min. 155°C	160°C	FMVSS 116
4 Viscosity, mm <sup>2</sup> /s: @ -40 °C @ 100 °C	max. 1800 mm <sup>2</sup> /s min. 1.5 mm <sup>2</sup> /s	1660 2,15	ISO 4925 section 5.1 or ASTM D 445
5 pH	7 –11,5	7,4	ISO 4925 section 5.3 or ASTM D 664
6 High Temperature Stability, °C	max. 3°C	Nil	ISO 4925 section 5.4
7 Chemical stability	max. 3.0°C	-2°C	
8 <u>Corrosion</u> Weight change in mg./sq. cm.			ISO 4925 section 5.5 ISO 4925 section 5.3 or ASTM D 664
Tinned iron	0,10	0,02	
Aluminum	0,10	0,00	
Cast iron	0,10	0,04	
Steel	0,10	0,00	
Copper	0,20	0,00	
Brass	0,20	0,00	
Measured from the bolt hole, pitting or etching of strips discernible without magnification	None	None	
Gelling of fluid/water, mixture at 23 ± 5°C	None	None	
Crystalline deposit on glass jar walls or on metal strips	None	None	
Sedimentation	max. 0.10%	None	
Disintegration of rubber cup as evidenced by stickiness, blisters or sloughing	None	None	
Decrease in hardness of max. rubber cups	15 IRHD	2 IRHD	
Increase in base diameter of rubber cup	max. 1.4 mm. (0.055 in)	0.16 mm (0.006 in)	
9 <u>Fluidity And Appearance At Low Temperatures</u>			ISO 4925 section 5.6

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@ -40°C

Stratification, sedimentation, sludging or crystallization	None	None
Time for air bubble to travel to top	max. 10 seconds	3 seconds
Appearance of sample after warming to room temperature	Same as before testing	Same

@ -50°C

Stratification, sedimentation, sludging or crystallization	None	None
Time for air bubble to travel to top	max. 35 seconds	4 seconds
Appearance of sample after warming to room temperature	Same as before testing	Same

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10 Water tolerance

ISO 4925 section 5.7

@ -40°C

Stratification, sedimentation, sludging or crystallization	None	None
Time for air bubble to travel to top	max. 10 seconds	1 second
Appearance of sample after warming to room temperature	Shall regain original clarity and fluidity	Regains original clarity and fluidity

@ 60°C

Stratification	None	None
Sedimentation	max. 0.15%	None

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11 Resistance To Oxidation

Outside the area of contact with the tinfoil, pitting or etching of metal strips to an extent discernible without magnification	None	None
Gum deposited on metal strips outside area of contact with the tinfoil	Trace	None
Weight loss in mg./sq. cm.		
Aluminum	max. 0.05	0,01
Cast iron	max. 0.3	0,03

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12 Effect On Rubber

@ 70°C ± 2°C

Hardness increase	None	None
Hardness decrease	Max. 10 IRHD	5 IRHD
Base diameter increase	0.15 mm (0.006 in) to 1.4 mm (0.055 in)	0.38 mm (0.015 in.)
Disintegration as evidenced by stickiness, blisters or sloughing	None	None

@ 120°C ± 2°C

Hardness increase	None	None	
Hardness decrease	Max. 15 IRHD	7 IRHD	
Base diameter increase	0.15 mm (0.006 in) to 1.4 mm (0.055 in)	0.58 mm (0.023 in.)	
Disintegration as evidenced by stickiness, blisters or sloughing	None	None	
13 Specific density at 20°C, gm/cm <sup>3</sup>	Actual data	1,07	ASTM D 1122
14 Water content, %	Actual data	0,08	ASTM D 1123

Brake Fluid **[G]LINE** DOT4 manufactured by UAB Greenlab Solutions meets the requirements of the Federal Motor Vehicle Safety Standard 116 as published in the Federal Register October 1, 2016 for DOT4 Motor Vehicle Brake Fluid.