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## Brake Fluid DOT 4

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**Product Name:** Brake Fluid DOT 4  
**Trade Name:** Brake Fluid DOT 4 - ULTRASAFE

Intended use: as a hydraulic fluid in automotive brake and clutch systems.

**ULTRASAFE shall fully meet the requirements of the latest issue of the FMVSS 116 DOT 4, SAE J 1703, SAE J 1704 and ISO 4925 (classes 3 & 4) specifications. The product shall also**

**Meet the following requirements:**

<b>Test</b>	<b>Method</b>	<b>Units</b>	<b>Specifications</b>
Equilibrium Reflux Boiling Point	FMVSS 116	°C	260 min.
Wet Equilibrium Boiling Point	FMVSS 116	°C	155 min.
Kinematic Viscosity at -40°C	ASTM D 445	cSt	1500 max.

The Brake Fluid also conforms to many other international and national standards.

**Typical Results: Hydraulic Brake Fluid 260 DOT 4 - ULTRASAFE**

<b>Test Required</b>	<b>Result</b>	<b>DOT 4 Specification</b>
ERBP Dry °C	269	230°C minimum
ERBP Wet °C	165	155°C minimum
Viscosity @ - 40°C. cSt	1000	1800 cSt maximum
Viscosity @ 100°C. cSt	2.33	1.5 cSt minimum
pH	8.65	7 - 11.5
High Temperature Stability °C	+1	+/-3.0°C maximum
Chemical Stability °C	-1	+/-3.0°C maximum
Evaporation % w/w	60	80% maximum
Fluidity and Appearance		
@ -40°C	Pass 3 seconds	No freezing Bubble time 10 sec. maximum
@ -50°C	Pass 5 seconds	No freezing Bubble time 35 sec. maximum
Water Tolerance		
@ -40°C	Clear 4 seconds	10 seconds maximum
@ +60°C	Clear No sediment	10 seconds maximum
Compatibility		
@ -40v	Clear No stratification	No stratification
@ +60°C	Clear No sediment	Sediment not to exceed 0.05% by volume
Colour	Pale Amber	Water white to Amber
Water content %	< 0.20	Not required

<b>Corrosion</b>	<b>Weight Change mg/cm<sup>2</sup> and Appearance</b>	<b>Weight Change mg/cm<sup>2</sup> and Appearance</b>
Tinned iron	Nil Good	0.2 max. No pitting or etching
Steel	Nil Good	0.2 max. No pitting or etching
Aluminium	Nil Good	0.1 max. No pitting or etching
Cast iron	+0.01 Good	0.2 max. No pitting or etching
Brass	-0.08 Good	0.4 max. No pitting or etching
Copper	-0.05 Good	0.4 max. No pitting or etching
Zinc	+0.04 Good	0.4 max. No pitting or etching
Fluid Appearance	Pass	No crystallization or gelling
Sediment %	<0.05	<0.1%
Rubber Diameter Change mm	+0.20	+1.40 max.
Hardness Change IRHD	-1	- 15 Deg. max.
Appearance	Pass	No sloughing, blistering or disintegration

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Test Required	Result				DOT 4 Specification			
	Diam. Change mm	Hardness Decrease IRHD	Volume Swell %	Appearance	Diam. Change mm	Hardness Decrease IRHD	Volume Swell %	Appearance
SBR 70°C	+0.72	-3	+5.90	Good	0.15 to 1.40	0-10	1-16	No blistering, sloughing or disintegration
SBR 120°C	+0.80	-5	+9.14	Good	0.15 to 1.40	0-15	1-16	No blistering, sloughing or disintegration
EPDM 70°C (1)	N/A	-1	+1.75	Good	N/A	0-10	1-10	No blistering, sloughing or disintegration
EPDM 120°C	N/A	-2	+2.78	Good	N/A	0-15	1-10	No blistering, sloughing or disintegration
Natural 70°C (2)	+0.44	-3	+5.34	Good	0.15 to 1.40	0-10	1-16	No blistering, sloughing or disintegration

(1) As required by SAE J 1703

(2) As required by ISO 4925

**Handling** The Brake Fluid is hygroscopic and must therefore be stored in tightly sealed containers.

**Safety** The sweet taste of the product may tempt children to drink large quantities.  
The product should therefore be kept out of the reach of children.

**Note** The information submitted in this publication is based on our current knowledge and experience. In view of the many factors that may affect processing and application, the data does not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legal binding assurance of certain properties or of suitability for a specific purpose. It is the responsibility of those whom we supply our products to, to ensure that any proprietary rights and existing laws and legislations are observed.