



Product Specification Sheet  
**Product: 710 (HBF 320) Racing Brake Fluid**

**SPECIFICATION NO.: OSS 130**

710 (HBF320) Racing brake fluid has been specifically formulated to provide the highest performance at the extreme temperatures experienced under race conditions.

Suitable for racing or other higher performance vehicles, both on and off road, it also meets the performance requirements of the International FMVSS 116 DOT4, SAE J 1703 and SAE J 1704 Specifications.

The product shall also meet the following requirements:

<b>Test</b>	<b>Method</b>	<b>Units</b>	<b>Specification</b>
Equilibrium Reflux Boiling Point	FMVSS 116	°C.	320 min.
Wet Equilibrium Boiling Point	FMVSS 116	°C.	195 min.
Kinematic Viscosity at -40 °C.	ASTM D 445	cSt	1800 max.

For the best performance change brake fluid before every race or competitive event, especially if brake temperatures are known to be high.

Do not mix 710 (HBF320) Racing Brake Fluid with other brake fluids, or its outstanding performance may be compromised.

710 (HBF320) Racing Brake Fluid is not suitable for use in certain Citroen and other vehicles requiring a mineral based fluid (LHM). It should not be used in vehicles fitted with magnesium alloy cylinders or reservoirs. Silicone type assembly compounds should not be used in conjunction with this product.



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**Typical Results: OSS 130 - Hydraulic Brake Fluid: 320 DOT 4 Racing**

<b>Test Required</b>	<b>Results</b>	<b>DOT 4 Specification</b>
ERBP DRY 0 C.	325	230 °C. Minimum
ERBP WET 0 C.	204	155 °C. Minimum
VISCOSITY @ -40 0 C. cSt	1698	1800 cSt Maximum
VISCOSITY @ 100 0 C. cSt	2.59	1.5 cSt Minimum
pH	7.15	7 – 11.5
HIGH TEMPERATURE STABILITY 0 C.	-1	+/- 3.0 °C. Maximum
CHEMICAL STABILITY 0 C.	+1	+/- 3.0 °C. Maximum
EVAPORATION % w/w	50	80% Maximum
<b>FLUIDITY AND APPEARANCE</b>		
@ -40 °C.	Pass 4 seconds	No freezing Bubble time 10 sec. Maximum
@ -50 °C.	Pass 7 seconds	No freezing Bubble time 35 sec. Maximum
<b>WATER TOLERANCE</b>		
@ -40 °C.	Clear 5 seconds	10 seconds Maximum
@ +60 °C.	Clear No sediment	10 seconds Maximum
<b>COMPATIBILITY</b>		
@ -40 °C.	Clear No stratification	No stratification
@ +60 °C.	Clear No sediment	Sediment not to exceed 0.05% by volume
<b>COLOUR</b>	Straw	Water white to amber
<b>WATER CONTENT %</b>	< 0.20	Not required
<b>DENSITY @ 200 C. g/ml</b>	1.078	Not required

<b>CORROSION</b>	<b>WEIGHT CHANGE Mg./cm2 and APPEARANCE</b>	<b>WEIGHT CHANGE Mg./cm2 and APPEARANCE</b>
Tinned Iron	+0.03 Good	0.2 max. No pitting or etching
Steel	+0.01 Good	0.2 max. No pitting or etching
Aluminium	+0.02 Good	0.1 max. No pitting or etching
Cast Iron	+0.10 Good	0.2 max. No pitting or etching
Brass	-0.04 Good	0.4 max. No pitting or etching
Copper	-0.05 Good	0.4 max. No pitting or etching
Zinc (2)	N/A	N/A
Fluid Appearance	Pass	No crystallisation or gelling
Sediment %	< 0.05	< 0.1%
pH	7.51	7 – 11.5
Rubber Diameter Change mm	+0.030	+1.40 max
Hardness Change IRHD	-4	-15 Deg. Max
Appearance	Pass	No sloughing, blistering or disintegration
<b>RESISTANCE TO OXIDATION</b>	<b>WEIGHT CHANGE Mg./cm2 and APPEARANCE</b>	<b>WEIGHT CHANGE Mg./cm2 and APPEARANCE</b>
Cast Iron	+0.03 Pass	0.3 max No pitting or roughening
Aluminium	-0.01 Pass	0.05 max No pitting or roughening

<b>Test Required</b>	<b>Results</b>	<b>DOT 4 Spec.</b>
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EFFECT ON RUBBER	DIAM. CHANGE MM	HARDNESS DECREASE IRHD	VOLUME SWELL %	APPEAR-ANCE	DIAM. CHANGE MM	HARDNESS DECREASE IRHD	VOLUME SWELL %	APPEAR-ANCE
SBR 70 °C.	+0.76	-4	+8.34	Good	0.15 to 1.40	0 - 10	1 – 16 (2)	No blistering, sloughing or disintegration
SBR 120 °C.	+1.05	-7	+10.41	Good	0.15 to 1.40	0 - 15	1 – 16 (2)	No blistering, sloughing or disintegration
EPDM 70 °C. (1)	N/A	-1	0.93	N/A	0 - 10	0 - 10		No blistering, sloughing or disintegration
EPDM 120 °C. (1)	N/A	-2.5	1.80	N/A	0 - 15	0 - 10		No blistering, sloughing or disintegration
Natural 70 °C. (2)	N/A	N/A	N/A	0.15 to 1.40	0 - 10	1 - 16		No blistering, sloughing or disintegration

(1) As required by SAE J1703  
 (2) As required by ISO 4925