



## RAVENOL DOT 4



ART.-NR. 1350601

1 L | 1350601-001  
 500 ML | 1350601-500  
 |  
 250 ML | 1350601-250  
 |  
 20 L | 1350601-020

**SPECIFICATIONS** ISO 4925 KLASSE 4 | FMVSS 116 DOT 4 | SAE J1704

**RAVENOL DOT 4** is a brake fluid for the use in all vehicles with optimum ABS characteristics. There is a chemical stability and it is provided with additives which save the best lubrication efficiency.

Because of the special formulation of **RAVENOL DOT 4** the international specifications SAE J1703, ISO 4925 and the safety regulations FMVSS 116 DOT3 and DOT4 from the United States of America are exceeded.

## Application Notes

**RAVENOL DOT 4** can be used in all vehicles for which the DOT 4 specification for brake fluids is required. It is suitable for all hydraulic brake systems with synthetic fluids.

**RAVENOL DOT 4** is miscible with all known brake fluids of the same specification.

## Characteristics

**RAVENOL DOT 4** offers:

- optimum ABS characteristics.
- chemical stability.
- best lubrication efficiency.
- neutral behaviour regarding brake parts.
- low viscosity at low temperatures.
- miscible with all brake fluids of the same specifications.

Property	Unit	Data	Audit
Colour		hellgelb	visual
Density at 20°C	kg/m <sup>3</sup>	1052	DIN ISO 12185



Property	Unit	Data	Audit
Refracting point	°C	269	ISO 4925
Viscosity at -40°C	mPa*s	1340	DIN EN ISO 3104
kinematic viscosity at 100°C	mm²/s	2,41	ASTM D445
pH-Wert		8,53	FMVSS 116
High Temperature Stability	°C	-1	FMVSS 116
Chemical Stability	°C	1	FMVSS 116
Evaporation loss	Gew%	61	FMVSS 116
Fluidity & Appearance at -40°C		i.O., 4s	FMVSS 116
Fluidity & Appearance at -50°C		i.O., 8s	FMVSS 116
Water Tolerance at -40°C		klar, 3s	FMVSS 116
Water Tolerance at +60°C		klar, keine Ablagerungen	FMVSS 116
Compatibility at -40°C		klar, keine Phasentrennung	FMVSS 116
Compatibility at +60°C		klar, keine Ablagerungen	FMVSS 116
Water content	Gew.-%	<0,2	Karl Fischer
Corrosion Resistance			
Tinned Iron	? mg/cm²	-0,03	FMVSS 116
–	Aussehen	gut	
Steel	? mg/cm²	-0,01	FMVSS 116
–	Aussehen	gut	
Aluminium	? mg/cm²	0	FMVSS 116
–	Aussehen	gut	
Cast Iron	? mg/cm²	-0,03	FMVSS 116
–	Aussehen	gut	
Brass	? mg/cm²	-0,08	FMVSS 116
–	Aussehen	gut	
Copper	? mg/cm²	-0,05	FMVSS 116



Property	Unit	Data	Audit
Zinc	Ausgemessen	gut	FMVSS 116
–	Aussehen	gut	
Aussehen der Flüssigkeit		i.O.	
Ablagerungen	%	<0,05	FMVSS 116
pH-Wert		8,2	FMVSS 116
Veränderung des Durchmessers von Gummi		0,16	FMVSS 116
Veränderung der Härte	IRHD	-4	FMVSS 116
Erscheinungsbild		i.O.	
Oxidationsbeständigkeit			
Tinned Iron	? mg/cm <sup>2</sup>	0,04	FMVSS 116
–	Aussehen	gut	
Aluminium	? mg/cm <sup>2</sup>	0,02	FMVSS 116
–	Aussehen	gut	
SBR bei 70°C	Ø Veränderung, mm	0,56	FMVSS 116
—	Härte, IRHD	-3	FMVSS 116
—	Volumen, %	6,21	FMVSS 116
–	Aussehen	gut	
SBR bei 120°C	Ø Veränderung, mm	0,73	FMVSS 116
—	Härte, IRHD	-7	FMVSS 116
—	Volumen, %	7,69	FMVSS 116
–	Aussehen	gut	
EPDM bei 70°C (Anforderung aus SAE J1703)	Härte, IRHD	-2	FMVSS 116
—	Volumen, %	1.39	FMVSS 116
–	Aussehen	gut	
EPDM bei 120°C	Härte, IRHD	-2	FMVSS 116
—	Volumen, %	1,91	FMVSS 116



Property	Unit	Data	Audit
Naturell bei 70°C (Anforderung aus ISO 4925)	Ø / Seifenanforderung, mm	0,18	FMVSS 116
—	Härte, IRHD	-5	FMVSS 116
—	Volumen, %	4,61	FMVSS 116
—	Aussehen	gut	
Colour		hellgelb	visual
Density at 20°C	kg/m <sup>3</sup>	1052	DIN ISO 12185
Boiling point	°C	271	ISO 4925
wet boiling point	°C	169	ISO 4925
Viscosity at -40°C	mPa*s	1340	DIN EN ISO 3104
kinematic viscosity at 100°C	mm <sup>2</sup> /s	2,41	ASTM D445
pH-Wert		8,53	FMVSS 116
High Temperature Stability	°C	-1	FMVSS 116
Chemical Stability	°C	1	FMVSS 116
Evaporation loss	Gew%	61	FMVSS 116
Fluidity & Appearance at -40°C		i.O., 4s	FMVSS 116
Fluidity & Appearance at -50°C		i.O., 8s	FMVSS 116
Water Tolerance at -40°C		klar, 3s	FMVSS 116
Water Tolerance at +60°C		klar, keine Ablagerungen	FMVSS 116
Compatibility at -40°C		klar, keine Phasentrennung	FMVSS 116
Compatibility at +60°C		klar, keine Ablagerungen	FMVSS 116
Water content	Gew.-%	<0,2	Karl Fischer
Corrosion Resistance			
Tinned Iron	? mg/cm <sup>2</sup>	-0,03	FMVSS 116
—	Aussehen	gut	
Steel	? mg/cm <sup>2</sup>	-0,01	FMVSS 116
—	Aussehen	gut	



Property	Unit	Data	Audit
Aluminium	Ausgemessen	gut	FMVSS 116
Cast Iron	? mg/cm <sup>2</sup>	-0,03	FMVSS 116
—	Aussehen	gut	
Brass	? mg/cm <sup>2</sup>	-0,08	FMVSS 116
—	Aussehen	gut	
Copper	? mg/cm <sup>2</sup>	-0,05	FMVSS 116
—	Aussehen	gut	
Zinc	? mg/cm <sup>2</sup>	0,01	FMVSS 116
—	Aussehen	gut	
Aussehen der Flüssigkeit		i.O.	
Ablagerungen	%	<0,05	FMVSS 116
pH-Wert		8,2	FMVSS 116
Veränderung des Durchmessers von Gummi		0,16	FMVSS 116
Veränderung der Härte	IRHD	-4	FMVSS 116
Erscheinungsbild		i.O.	
Oxidationsbeständigkeit			
Tinned Iron	? mg/cm <sup>2</sup>	0,04	FMVSS 116
—	Aussehen	gut	
Aluminium	? mg/cm <sup>2</sup>	0,02	FMVSS 116
—	Aussehen	gut	
SBR bei 70°C	Ø Veränderung, mm	0,56	FMVSS 116
—	Härte, IRHD	-3	FMVSS 116
—	Volumen, %	6,21	FMVSS 116
—	Aussehen	gut	
SBR bei 120°C	Ø Veränderung, mm	0,73	FMVSS 116
—	Härte, IRHD	-7	FMVSS 116
—	Volumen, %	7,69	FMVSS 116



Property	Unit	Data	Audit
–	Aussehen	gut	
EPDM bei 70°C (Anforderung aus SAE J1703)	Härte, IRHD	-2	FMVSS 116
—	Volumen, %	1.39	FMVSS 116
–	Aussehen	gut	
EPDM bei 120°C	Härte, IRHD	-2	FMVSS 116
—	Volumen, %	1,91	FMVSS 116
–	Aussehen	gut	
Naturell bei 70°C (Anforderung aus ISO 4925)	Ø Veränderung, mm	0,38	FMVSS 116
—	Härte, IRHD	-5	FMVSS 116
—	Volumen, %	4,61	FMVSS 116
–	Aussehen	gut	

All information correspond to the best of our knowledge to the actual situation of the cognitions and our development. Subject to alterations. All references made to DIN-norms are only for the description of the goods. There is no guarantee. In case there will be any problems please contact the technical service.

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