

**Product Data****Brayco Micronic 756**

Hydraulic Fluid, Petroleum Base

Description

Castrol Brayco™ Micronic 756 is a petroleum base, low viscosity, red colored ISO Grade 15 hydraulic fluid for aircraft, missile and ordnance use. It is a blend of highly refined, selected base stocks with suitable additives, which yield a product with exceptionally good viscosity-temperature characteristics, good anti-wear properties, low rubber swell, and excellent oxidation stability. The use of a polymeric viscosity index improver of low molecular weight provides stability in comparison to typical hydraulic fluids.

Application

Brayco Micronic 756 is designed for use in aircraft, missile, and ordnance hydraulic systems where long term stability and a low temperature fluid is required. Brayco Micronic 756 is filtered to meet rigid particle contaminant requirements. It is intended for use in automatic pilots, shock absorbers, brakes, flap-control mechanisms, missile hydraulic servo-controlled systems and other hydraulic systems using synthetic sealing materials.

Temperature Range:-

Brayco Micronic 756 is designed to operate over the temperature range of -54°C to 135°C (-65°F to 275°F).

Specification:-

Brayco Micronic 756 meets the requirements and is qualified under military specification MIL-PRF-5606J. This fluid is identified by Military Symbol: OHA and NATO Code Number: H-515.

Typical Characteristics

Name	Method	Units	MIL-PRF-5606J Requirements	BM 756
Appearance	Visual	-	-	Red liquid
Density @ 15.6°C / 60°F	ISO 12185/ASTM D4052	kg/m³	Report	873
Kinematic Viscosity @ 100°C / 212°F	ISO 3104/ASTM D445	mm²/s	4.9 Minimum	5.1
Kinematic Viscosity @ 40°C / 104°F	ISO 3104/ASTM D445	mm²/s	13.2	13.5
Kinematic Viscosity @ -40°C / -40°F	ISO 3104/ASTM D445	mm²/s	600 Maximum	487
Kinematic Viscosity @ -54°C / -65°F	ISO 3104/ASTM D445	mm²/s	2500 Maximum	2275
Viscosity Index	ISO 2909/ASTM D2270	-	-	382
Pour Point	ASTM D 5949	°C/°F	-60/-76 Maximum	-60/-76
Foam Sequence I - tendency / stability	ISO 6247/ASTM D892	ml/ml	65 / nil	35 / nil
Flash Point - closed cup method	ISO 2719/ASTM D93	°C/°F	82/180 Minimum	96/205
Acid Number	ISO 6619/ASTM D664	mg KOH/g	0.2 Maximum	0.03
Color	ASTM D1500	-	Red Per Standard	Red
Water Content	ASTM D6304	mg/kg	100 Maximum	36
Corrosion & Oxidation Stability 168 hrs @ 135°C :-				
Weight Change	ASTM D4636			
Copper		mg/cm²	±0.6	-0.053
Aluminum Alloy		mg/cm²	±0.2	-0.023
Magnesium Alloy		mg/cm²	±0.2	-0.015
Steel		mg/cm²	±0.2	0.000
Cadmium		mg/cm²	±0.2	+0.007
Copper Color by ASTM D130			3 Max	Pass
Kinematic Viscosity Change @ 40°C / 104°F		%	-5 - 20	+9.6
Change in Acid Number		mg KOH/g	0.2 Maximum	0.02
Oil insolubles/gums		Visual	None	Pass
Low Temperature Stability 54°C/129°F for 72 hours	FTM 3458	Visual	No Solids or Separation	Pass
Rubber Swell "L", 168 hrs @ 70°C/158°F, (NBR-L, SAE-AMS 3217/2)	ASTM D4289	%	19 - 30	28
Evaporation Loss, 6 hrs @ 71°C/160°F	ASTM D972	%	20 Max	9.6
Copper corrosion (3 hrs@100°C/212°F)	ASTM D130	Class	2e Max	2b
Particulate Contamination (Number of particles per 100ml in range specified) :-				
5-15 micron	FTM 3012		8000	4500
15-25 micron			1425	195
25-50 micron			253	50
50-100 micron			45	10
>100 micron			8	1
Gravimetric Residue	ASTM D4898	mg/100mL	1.0 Max	0.2
Four Ball Wear test - Wear Scar Diameter, Condition B	ASTM D4172	mm	1 Max	0.77
Shear Stability (Viscosity change less than reference fluid B)	ASTM D2603	%	Pass	Pass
Barium content	ASTM D5185	mg/kg	10 Maximum	Nil

Subject to usual manufacturing tolerances.

Additional Information

Specific Heat		Thermal Conductivity	
Temperature, °F	BTU/LB/°F	Temperature, °F	BTU-ft²/hr/°F
-60	0.361	-65	0.0816
-30	0.377	0	0.0802
0	0.392	100	0.0777
80	0.453	200	0.0753
150	0.493	300	0.0730
200	0.523		
250	0.552		

Bulk Modulus, Adiabatic, @24°C (76°F)		Vapor Pressure	
Pressure, PSI	Bulk Modulus, PSI	Temperature, °C	Mm of Hg
0	232,000	145.6	30.3
100	243,000	133.3	17.9
2000	255,000	123.3	12.2
3000	266,000	110.0	6.7
		90.0	2.9
		12.8	0.01
		-17.8	0.0006
		-54.0	0.000005

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