

SERIOLA ETA



Heat transfer fluid



Mineral based heat transfer fluid.

APPLICATIONS

- Heating of domestic and industrial premises,
- Production of steam and hot water,
- Air conditioning,
- Temperature control for storage bins,
- Heating by heat exchange,
- All types of systems (piping, pumps, etc...),
- Heating of heat treatment baths, autoclaves, reaction vessels, furnaces, dies, tunnel driers, injection moulding machines, etc...,
- Manufacturing processes (cement works, paper mills, timber industry, etc...).

SPECIFICATIONS

International standards

- ISO 6743/12 class L family QC
- **SERIOLA ETA 32** is approved by the french health Direction for drinking water thermal treatment.

ADVANTAGES

Long life

Low circuit deposits formation, slow warming time

- Compared to conventionnal fluids **SERIOLA ETA** has an excellent resistance to thermal cracking.
- Low viscosity of **SERIOLA ETA 32** allows fast rise in flow during starting periods.
- Static and dynamic deterioration tests have shown that at test temperatures exceeding 340 °C, the following results were obtained using **SERIOLA ETA** in comparison with other heat transfer mediums available:
 - weight of deposits was 10 to 20 times lower,
 - rate of production of light fractions was cut by half.
 The joint effect of these advantages was that the life of the fluid itself and that of the installation were increased.

TYPICAL CHARACTERISTICS	METHODS	UNITS	SERIOLA ETA	
			32	100
Density at 20 °C	ISO 3675	kg/m ³	862	878
Kinematic viscosity at 40 °C	ISO 3104	mm ² /s	32	95
Kinematic viscosity at 100 °C	ISO 3104	mm ² /s	5.0	10.0
Flash point OC	ISO 2592	°C	230	260
Fire point	ISO 2592	°C	260	290
Pour point	ISO 3016	°C	- 15	- 9
Acid value	ISO 6618	mgKOH/g	0.01	0.02
Conradson carbon residue	ISO 6615	% weight	0.01	0.2
Bulk temperature limit*	-	°C	310	310
Limit temperature of oil film*	-	°C	330	350

Above characteristics are mean values given as an information.

* Without air contact.

**TOTAL LUBRIFIANTS
INDUSTRIE**

19-09-2016 (supersedes 29-07-2014)

SERIOLA ETA

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Seriola ETA 32
Thermodynamic Data

T (°C)	Specific Heat (kJ/kg.°C)	Thermal Conductivity (W/m.°C)	Density (kg/m ³)
0	1.876	0.133	874
10	1.914	0.132	868
15	1.932	0.132	865
20	1.951	0.132	862
30	1.989	0.131	855
40	2.026	0.130	849
50	2.064	0.130	843
60	2.101	0.129	837
70	2.139	0.128	830
80	2.176	0.127	824
100	2.251	0.126	812
110	2.289	0.125	805
120	2.326	0.125	799
130	2.364	0.124	793
140	2,401	0.123	787
150	2.439	0.123	780
160	2.476	0.122	774
170	2.514	0.121	768
180	2.551	0.120	762
190	2.589	0.120	755
200	2.626	0.119	749
210	2.664	0.118	743
220	2.701	0.118	737
230	2.739	0.117	730
240	2.776	0.116	724
250	2.814	0.116	718
260	2.851	0.115	712
270	2.889	0.114	705
280	2.926	0.113	699
290	2.964	0.113	693
300	3.001	0.112	687
310	3.039	0.111	680
320	3.076	0.111	674
330	3.114	0.110	668

Seriola ETA 100

Thermodynamic Data

T (°C)	Specific Heat (kJ/kg.°C)	Thermal Conductivity (W/m.°C)	Density (kg/m ³)
0	1.859	0.131	890
10	1.898	0.130	884
15	1.917	0.130	881
20	1.936	0.130	878
30	1.975	0.129	871
40	2.014	0.128	865
50	2.053	0.128	859
60	2.091	0.127	853
70	2.130	0.126	847
80	2.169	0.125	840
100	2.246	0.124	828
110	2.285	0.123	822
120	2.323	0.123	815
130	2.362	0.122	809
140	2.401	0.121	803
150	2.440	0.121	797
160	2.478	0.120	791
170	2.517	0.119	784
180	2.556	0.118	778
190	2.594	0.118	772
200	2.633	0.117	766
210	2.672	0.116	760
220	2.710	0.116	753
230	2.749	0.115	747
240	2.788	0.114	741
250	2.827	0.114	735
260	2.865	0.113	729
270	2.904	0.112	722
280	2.943	0.111	716
290	2.981	0.111	710
300	3.020	0.110	704
310	3.059	0.109	697
320	3.097	0.109	691
330	3.136	0.108	685
340	3.175	0.107	679
350	3.214	0.107	673