

TECHNICAL DATA SHEET

Barrier N

Synthetic Barrier Fluid · 182 Series

Barrier N is a nonreactive, pure, synthetic food-grade barrier fluid that provides excellent lubrication and cooling for mechanical seals. It is manufactured to the highest possible standards, undergoing a thorough filtration process to ensure an extremely clean formulation that protects seals from damaging abrasive materials. Barrier N is free of impurities and additives and is not harmful to catalysts if it enters a process stream.

This advanced formulation uses synthetic base stocks that ensure excellent thermal stability and superior cold-temperature properties, allowing Barrier N to be used over a very wide temperature range.

**APPLICATIONS**

- Buffer / barrier fluid for mechanical seals

BENEFITS

- Extremely pure formulation – free of impurities and catalyst friendly
- Highly filtered with excellent ISO cleanliness (14/13/11)
- Complies with FDA 21 CFR 178.3570 and registered NSF H1 Food Grade
- Superior low-temperature fluidity
- Excellent thermal stability
- Resists water contamination and separates readily from water
- Excellent elastomer compatibility

TECHNICAL SPECIFICATIONS

Typical properties

Product Name	Barrier 5N	Barrier 17N	Barrier 30N	Barrier 46N	Barrier 60N
Viscosity @ 40 °C (cSt)	5.4	17.4	30.7	46.4	64.0
Viscosity @ 100 °C (cSt)	1.7	3.9	5.8	7.8	10.3
Viscosity Index	66	119	134	137	149
Specific Gravity @ 15 °C	0.80	0.82	0.83	0.83	0.84
Pour Point (°C)	-60	-66	-63	-57	-57
Flash Point (°C)	158	224	245	262	278
Initial Boiling Point (°C)	298	336	382	>400	>400

VISCOSITY, DENSITY & HEAT CAPACITY

Temp °C	Barrier 5N			Barrier 17N			Barrier 30N			Barrier 46N			Barrier 60N		
	cSt	kg/L	J/g·K	cSt	kg/L	J/g·K	cSt	kg/L	J/g·K	cSt	kg/L	J/g·K	cSt	kg/L	J/g·K
-40	262	0.838	1.90	2704	0.859	1.92	7985	0.867	1.90	19352	0.871	1.90	39322	0.871	1.95
-20	57.3	0.823	1.98	544	0.845	1.99	1380	0.853	1.97	2595	0.857	1.97	3495	0.858	2.00
0	20.0	0.809	2.05	117	0.830	2.05	256	0.838	2.05	442	0.842	2.04	612	0.845	2.07
20	9.4	0.794	2.13	39.2	0.815	2.12	75.8	0.823	2.12	122	0.827	2.12	169	0.833	2.13
40	5.4	0.780	2.20	17.4	0.801	2.19	30.7	0.809	2.19	46.4	0.813	2.19	64.0	0.820	2.21
60	3.4	0.765	2.28	9.4	0.786	2.26	15.4	0.794	2.27	22.2	0.798	2.26	30.2	0.808	2.29
80	2.4	0.751	2.35	5.8	0.771	2.33	9.0	0.779	2.34	12.4	0.783	2.33	16.6	0.795	2.37
100	1.7	0.736	2.43	3.9	0.757	2.39	5.8	0.765	2.42	7.8	0.769	2.40	10.3	0.783	2.45
120	1.4	0.722	2.50	2.8	0.742	2.46	4.1	0.750	2.49	5.3	0.754	2.48	6.9	0.770	2.54
140	1.2	0.707	2.58	2.2	0.727	2.53	3.1	0.735	2.56	3.9	0.739	2.55	5.0	0.758	2.63
160	1.0	0.693	2.66	1.7	0.712	2.60	2.4	0.720	2.64	2.9	0.724	2.62	3.8	0.745	2.73
180	0.8	0.678	2.73	1.4	0.698	2.67	1.9	0.706	2.71	2.3	0.710	2.69	3.0	0.733	2.82
200	0.7	0.664	2.81	1.2	0.683	2.73	1.6	0.691	2.79	1.9	0.695	2.76	2.4	0.720	2.92

NOTE

Values in this Technical Data Sheet are typical and do not constitute a specification. Manufacturing specifications are available on request. Routine fluid analysis is recommended to assess the in-service condition of the fluid. Specifications are subject to change due to formulation or raw-material updates; always verify that this TDS is the most current version.