



SYN D&E

Features

- 100% PAO Synthetic based
- Effective oxidation and corrosion inhibitors
- High stability
- Excellent demulsibility

Benefits

- Wide operating temperature range
- Excellent low-temperature fluidity
- Resists foaming
- Resists oxidation – ensures long oil life
- Prevents corrosion

SYN D & E oils are blended using polyalphaolefin (PAO) synthetic hydrocarbon fluid and contain very effective oxidation and corrosion inhibitors. These oils have excellent oxidation and thermal stability. They also have excellent demulsibility characteristics, separating rapidly from water. They also show excellent air-release properties and excellent foam resistance.

SYN D & E oils are recommended for use in light duty (no EP) reduction gears and circulating oil systems. They can be used in the same applications as the mineral **Irving D&E** oils. Their higher cost, though, makes them particularly suited to those applications where their extended life, high temperature stability or low temperature fluidity can be used to advantage.

Lighter grades of **SYN D&E** are suitable for extended life or extreme temperature performance in turbines and compressors. In some rotary type air compressors where anti-wear ability is not required they can significantly extend the oil-change interval. Heavier grades of **SYN D&E** are excellent lubricants for extended life in the dryer bearing lubrication systems of paper machines that do not need anti-wear or extreme pressure ability in the oil, as well as other industrial mill machinery such as gearboxes, centrifugal pumps, vacuum pumps and blowers. The heaviest grades of **SYN D&E** will provide superior lubrication in heavily-loaded or slow-speed gear reducers. For worm gear reducers with a bronze gear, **Irving SYN GEAR 460PG** should be considered the best synthetic replacement for the mineral compounded cylinder oils often used.

SYN D&E oils have a high natural viscosity index (VI) and so give an extended operating temperature range compared to the equivalent grades of mineral oil. Grade for grade they allow colder starts for machinery that has to operate outside or in un-heated plant locations. They also retain their viscosity better at high temperatures, which directly improves the lubricating film.



Typical Performance Results

ISO GRADE	32	150	220	460
AGMA GRADE		4	5	7
VISCOSITY (D-445)				
cSt @ 40°C	32.6	153.9	222.3	460.9
cSt @ 100°C	6.5	19.8	26.5	47.4
VISCOSITY INDEX (D-2270)	130	148	152	161
POUR POINT (°C) (D-97)	< -50	-42	-39	-36
FLASH POINT (°C) (D-92)	248	268	284	275
OXIDATION LIFE HRS. (D-943)	2500+	2500+	2500+	2500+
STRONG ACID NO. (D-974) mg KOH/gm	NIL	NIL	NIL	NIL
TOTAL ACID NUMBER (D-974)	.21	.27	.29	<0.1
SPECIFIC GRAVITY (D-4052)	.8275	.8465	.8493	.8525
DEMULSIBILITY (D-1401)	40/40/0(5) ALL GRADES			
FOAM (D-892)				
SEQ. I (75°F)	0/0	0/0	0/0	0/0
SEQ. II (200°F)	0/0	0/0	0/0	0/0
SEQ. III (75°F)	0/0	0/0	0/0	0/0

Available Package Sizes

SYN D&E 32

- Bulk

SYN D&E 150

- 20 L (5.28 US gal.) Pail
- 210 L (55.5 US gal.) Drum

SYN D&E 220

- 20 L (5.28 US gal.) Pail
- 210 L (55.5 US gal.) Drum

SYN D&E 460

- 20 L (5.28 US gal.) Pail
- 210 L (55.5 US gal.) Drum

