



Industrial Oil

Phillips 66® Industrial Oil is a highly refined, non-compounded (no additives) paraffinic mineral oil recommended for use as a high-quality process oil, diluent oil, flush oil, or blending component for other lubricants. It is also recommended for general-purpose lubrication in applications that do not require a compounded oil.

Industrial Oil is available in nine grades for use in a wide range of applications. It is highly refined from select paraffinic stocks to be uniform in quality and chemical composition with consistent physical and chemical properties. It has high natural oxidation stability, low volatility, and good viscosity-temperature characteristics for use over a wide temperature range. It has a high flash point relative to its viscosity, good solvency properties, and very light color.

Industrial Oil 350 and 580 are registered with NSF International as H2 lubricants for use in applications where there is no food contact.

Applications

- Process oil
- Compounding oil for rubber products and adhesives
- Blending component for other lubricants
- Flush oil for gas and steam turbines
- Mineral seal oil
- Chain drives and other “once-through” applications
- General-purpose lubrication in applications that do not require a compounded oil

Industrial Oil 350 and 580 are registered NSF H2:

- Industrial Oil 350, NSF registration no. 159324
- Industrial Oil 580, NSF registration no. 142218

Features/Benefits

- Uniform quality and chemical composition
- High natural oxidation stability
- Good viscosity-temperature characteristics
- Low volatility
- High flash point
- Good solvency
- Very light color (except 2500 grade)
- Non-staining
- Quick foam release

Highly Refined Paraffinic Mineral Oil





Industrial Oil

Typical Properties						
Grade		70	100	110	115	150
ISO Grade		10/15	22	22	22	32
Gravity, °API @ 60°F		33.8	34.1	34.4	33.9	32.4
Specific Gravity @ 60°F		0.856	0.855	0.8529	0.856	0.863
Density, lbs/gal @ 60°F		7.13	7.12	7.1	7.12	7.19
Color	ASTM D1500	0.5	0.5	0.5	0.5	0.5
Flash Point (COC), °C (°F)	ASTM D92	196 (385)	209 (408)	207(405)	210 (410)	216 (421)
Pour Point, °C (°F)	ASTM D97	-34 (-29)	-14 (7)	-15(5)	-18 (0)	-18 (0)
Viscosity	ASTM D445					
cSt @ 40°C		12.6	20.3	20.3	22.0	32.0
cSt @ 100°C		3.0	4.1	4.16	4.4	5.5
SUS @ 100°F		72.0	107	107	115	165
SUS @ 210°F		36.4	40.1	40.1	41.1	44.7
Viscosity Index	ASTM D2270	87	101	106	109	108
Acid Number, mg KOH/g	ASTM D664	<0.05	<0.05	<0.05	<0.05	<0.05
Aniline Point, °C (°F)	ASTM D611	96 (205)	107 (225)	107 (225)	108 (226)	112 (234)

Grade		250	350	580	2500
ISO Grade		46	68	100	460
Gravity, °API @ 60°F		31.7	31.0	29.5	27.4
Specific Gravity @ 60°F		0.867	0.871	0.879	0.890
Density, lbs/gal @ 60°F		7.22	7.25	7.32	7.41
Color	ASTM D1500	0.5	0.5	0.5	5.0
Flash Point (COC), °C (°F)	ASTM D92	238 (460)	246 (475)	266 (511)	312 (594)
Pour Point, °C (°F)	ASTM D97	-18 (0)	-18 (0)	-13 (9)	-12 (10)
Viscosity	ASTM D445				
cSt @ 40°C		46.0	68.0	109	460
cSt @ 100°C		6.9	9.0	11.9	30.7
SUS @ 100°F		237	362	569	2,464
SUS @ 210°F		49.3	57.0	67.3	151
Viscosity Index	ASTM D2270	105	103	98	95
Acid Number, mg KOH/g	ASTM D664	<0.05	<0.05	<0.05	<0.05
Aniline Point, °C (°F)	ASTM D611	116 (241)	120 (248)	126 (259)	132 (270)

Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via <http://www.phillips66.com/SDS>.