

ABU DHABI NATIONAL OIL COMPANY (ADNOC)

ADNOC BASE OIL SPECIFICATIONS

PRODUCT SPECIFICATION

GRADE **ADBASE 2CST (GROUP II)**

SPEC NO. 8222

PROPERTY	UNIT	LIMIT		TEST METHOD
		MIN	MAX	
APPEARANCE	-	CLEAR & BRIGHT		ASTM D4176-1
VISCOSITY, KINEMATIC AT 100°C	mm ² /s	2.1	2.3	ASTM D445
VISCOSITY, KINEMATIC AT 40°C	mm ² /s	REPORT		ASTM D445
VISCOSITY INDEX	-	REPORT		ASTM D2270
POUR POINT	°c	-	-27	ASTM D97 ASTM D5949 OR ASTM D5950
FLASH POINT (COC)	°c	155	-	ASTM D92
SULFUR	mg/kg	-	10	ASTM D2622 OR ASTM D7039
WATER	mg/kg	-	50	ASTM D6304 OR ISO 12937
COLOR, SAYBOLT	-	REPORT		ASTM D156
DENSITY AT 15°C	g/ml	REPORT		ASTM D4052 OR ASTM D1298
COPPER STRIP CORROSION (3H/100 °C)	-	REPORT		ASTM D130
ACID NUMBER	mg KOH/g	REPORT		ASTM D664
CARBON RESIDUE, MICRO METHOD	% (m/m)	REPORT		ASTM D524 ASTM D4530 OR ISO 4262
SATURATES	mass %	REPORT		ASTM D2007 ASTM D7419 OR IP 368
AROMATICS	mass %	REPORT		ASTM D2007 ASTM D7419 OR IP 368

PRODUCT SPECIFICATION

GRADE **ADBASE 3CST (GROUP II)**

SPEC NO. 8230

PROPERTY	UNIT	LIMIT		TEST METHOD
		MIN	MAX	
APPEARANCE	-	CLEAR & BRIGHT		ASTM D4176-1
VISCOSITY, KINEMATIC AT 100°C	mm ² /s	2.9	3.1	ASTM D445
VISCOSITY, KINEMATIC AT 40°C	mm ² /s	REPORT		ASTM D445
VISCOSITY INDEX	-	100	-	ASTM D2270
POUR POINT	°c	-	-24	ASTM D97 ASTM D5949 OR ASTM D5950
FLASH POINT (COC)	°c	170	-	ASTM D92
SULFUR	mg/kg	-	10	ASTM D2622 OR ASTM D7039
WATER	mg/kg	-	50	ASTM D6304 OR ISO 12937
COLOR, SAYBOLT	-	REPORT		ASTM D156
DENSITY AT 15°C	g/ml	REPORT		ASTM D4052 OR ASTM D1298
COPPER STRIP CORROSION (3H/100 °C)	-	REPORT		ASTM D130
ACID NUMBER	mg KOH/g	REPORT		ASTM D664
CARBON RESIDUE, MICRO METHOD	% m/m	REPORT		ASTM D524 ASTM D4530 OR ISO 4262
SATURATES	mass %	REPORT		ASTM D2007 ASTM D7419 OR IP 368
AROMATICS	mass %	REPORT		ASTM D2007 ASTM D7419 OR IP 368

PRODUCT SPECIFICATION

GRADE **ADBASE 4CST (GROUP III)**

SPEC NO. 8343

PROPERTY	UNIT	LIMIT		TEST METHOD
		MIN	MAX	
APPEARANCE	-	CLEAR & BRIGHT		ASTM D4176-1
VISCOSITY, KINEMATIC AT 100°C	mm ² /s	4.2	4.4	ASTM D445
VISCOSITY, KINEMATIC AT 40°C	mm ² /s	REPORT		ASTM D445
VISCOSITY INDEX	-	127	-	ASTM D2270
POUR POINT	°c	-	-18	ASTM D97 ASTM D5949 OR ASTM D5950
FLASH POINT (COC)	°c	220	-	ASTM D92
EVAPORATION LOSS, NOACK METHOD	% m/m	-	12.0	ASTM 5800 METHOD B
APPARENT VISCOSITY BY CCS AT -30°C	mPa s	-	1500	ASTM D5293
SULFUR	mg/kg	-	10	ASTM D2622 ASTM D7039
WATER	mg/kg	-	50	ASTM D6304 OR ISO 12937
COLOR, SAYBOLT	-	+26	-	ASTM D156
DENSITY AT 15°C	g/ml	REPORT		ASTM D4052 OR ASTM D1298
COPPER STRIP CORROSION (3H/100 °C)	-	REPORT		ASTM D130
ACID NUMBER	mg KOH/g	REPORT		ASTM D664
CARBON RESIDUE, MICRO METHOD	% (m/m)	REPORT		ASTM D524 ASTM D4530 OR ISO 4262
SATURATES	mass %	REPORT		ASTM D2007 ASTM D7419 OR IP 368
AROMATICS	mass %	REPORT		ASTM D2007 ASTM D7419 OR IP 368

PRODUCT SPECIFICATION

GRADE **ADBASE 6CST (GROUP III)**

SPEC NO. 8360

PROPERTY	UNIT	LIMIT		TEST METHOD
		MIN	MAX	
APPEARANCE	-	CLEAR & BRIGHT		ASTM D4176-1
VISCOSITY, KINEMATIC AT 100°C	mm ² /s	5.8	6.2	ASTM D445
VISCOSITY, KINEMATIC AT 40°C	mm ² /s	REPORT		ASTM D445
VISCOSITY INDEX	-	130	-	ASTM D2270
POUR POINT	°c	-	-15	ASTM D97 ASTM D5949 OR ASTM D5950
FLASH POINT (COC)	°c	220	-	ASTM D92
EVAPORATION LOSS, NOACK METHOD	% m/m	-	7.0	ASTM 5800 METHOD B
APPARENT VISCOSITY BY CCS AT -30°C	mpa s	-	4000	ASTM D5293
SULFUR	mg/kg	-	10	ASTM D2622 ASTM D7039
WATER	mg/kg	-	50	ASTM D6304 OR ISO 12937
COLOR, SAYBOLT	-	+25	-	ASTM D156
DENSITY AT 15°C	g/ml	REPORT		ASTM D4052 OR ASTM D1298
COPPER STRIP CORROSION (3H/100 °C)	-	REPORT		ASTM D130
ACID NUMBER	mg KOH/g	REPORT		ASTM D664
CARBON RESIDUE, MICRO METHOD	% (m/m)	REPORT		ASTM D524 ASTM D4530 OR ISO 4262
SATURATES	mass %	REPORT		ASTM D2007 ASTM D7419 OR IP 368
AROMATICS	mass %	REPORT		ASTM D2007 ASTM D7419 OR IP 368

PRODUCT SPECIFICATION

GRADE **ADBASE 8CST (GROUP III)**

SPEC NO. 8380

PROPERTY	UNIT	LIMIT		TEST METHOD
		MIN	MAX	
APPEARANCE	-	CLEAR & BRIGHT		ASTM D4176-1
VISCOSITY, KINEMATIC AT 100°C	mm ² /s	7.6	8.2	ASTM D445
VISCOSITY, KINEMATIC AT 40°C	mm ² /s	REPORT		ASTM D445
VISCOSITY INDEX	-	130	-	ASTM D2270
POUR POINT	°c	-	-12	ASTM D97 ASTM D5949 OR ASTM D5950
FLASH POINT (COC)	°c	220	-	ASTM D92
EVAPORATION LOSS, NOACK METHOD	% m/m	-	4.0	ASTM 5800 METHOD B
APPARENT VISCOSITY BY CCS AT -30°C	mpa s	-	9000	ASTM D5293
SULFUR	mg/kg	-	10	ASTM D2622 ASTM D7039
WATER	mg/kg	-	50	ASTM D6304 OR ISO 12937
COLOR, SAYBOLT	-	+23	-	ASTM D156
DENSITY AT 15°C	g/ml	REPORT		ASTM D4052 OR ASTM D1298
ACID NUMBER	mg KOH/g	REPORT		ASTM D664
CARBON RESIDUE, MICRO METHOD	% (m/m)	REPORT		ASTM D524 ASTM D4530 OR ISO 4262
SATURATES	mass %	REPORT		ASTM D2007 ASTM D7419 OR IP 368
AROMATICS	mass %	REPORT		ASTM D2007, ASTM D7419 OR IP 368