



ABOUT ADBASE

ADNOC is one of the world's leading energy companies

Abu Dhabi National Oil Company (ADNOC) operates across the entire hydrocarbon value chain, with interests ranging from exploration and production to storage, refining and distribution.

At ADNOC, we have a production capacity of 3.5 million barrels of oil per day and process more than 900,000 barrels of condensate and crude oil.

Through ADNOC Refining, we produce 100,000 metric tons of Group II base oil and 500,000 metric tons of high quality Group III base oil per year.

This is marketed under the brand name of ADbase.

To assure quality and consistency of the highest standard, ADbase uses high paraffinic crude oil as feedstock to produce a consistently outstanding product, ideal for top tier lubricant manufacturers. ADbase has a high Viscosity Index (VI) making it an ideal lubricant component, ensuring efficiency and fuel economy for high performance engines, while meeting ever stringent environmental regulations.

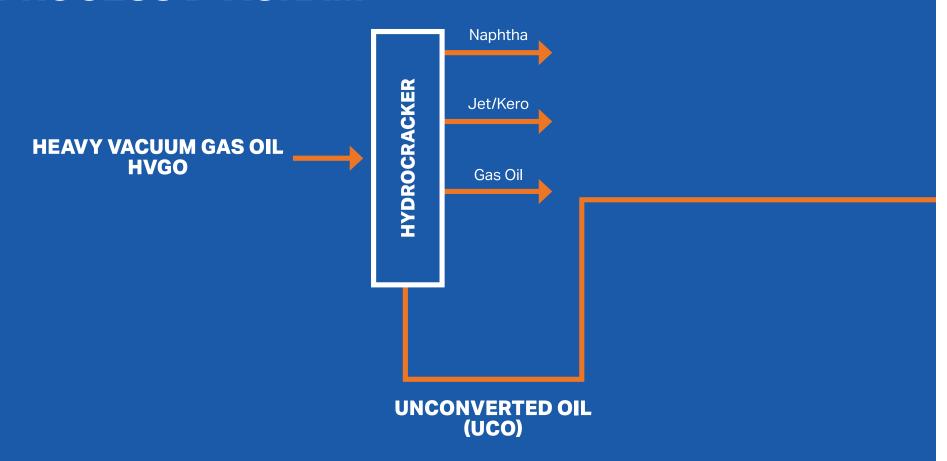
ADbase also has Low Volatility (Noack) and a low Cold Cranking Simulator (CCS) viscosity.

ADNOC has state of the art shipping facilities allowing us to accommodate different cargo sizes and types.

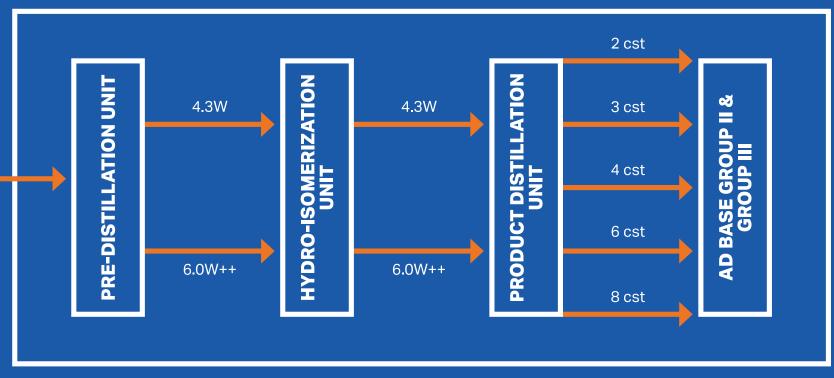
We have a dedicated team available 24 hours a day, 7 days a week to work with our customers and ensure their needs are met.



THE ADBASE **PROCESS DIAGRAM**



^{*} ADNOC manufactures base stocks in accordance with the ATIEL Code of Practice (Base Stock Quality Assurance guidelines) and signed a Letter of Conformance. * ADNOC Refining Base Oil unit is certified with ISO 9001: 2015 Quality Management System.



BASE OILS PLANT

TYPICAL SPECIFICATIONS

Properties	Unit	ADbase 2CST	ADbase 3CST	ADbase 4CST	ADbase 6CST	ADbase 8CST
Kinematic Viscosity @ 100 deg C	mm2/s	2.3	3.05	4.35	6.18	8.05
Kinematic Viscosity @ 40 deg C	mm2/s	7.5	12	20	34	49
Viscosity Index		115	120	130	137	137
Density @15 deg C	g/ml	0.823	0.825	0.832	0.844	0.845
Pour Point	deg C	-27	-24	-18	-15	-12
Flash Point	deg C	170	190	220	235	255
Evaporation Loss Noack method	%M/M	-	-	12.5	6.8	3.5
Apparent Viscosity by CCS @-30 deg C	mPas	-	-	1400	3700	8000
Sulfur	mg/kg	<3	<3	<3	<3	<3
Aromatic content	mass%	<0.2	<0.2	<0.2	<0.2	<0.2
Saturates	mass%	99.8	99.8	99.8	99.8	99.8

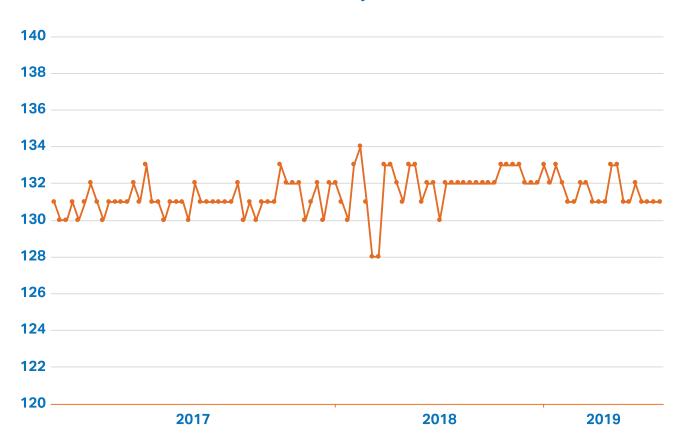


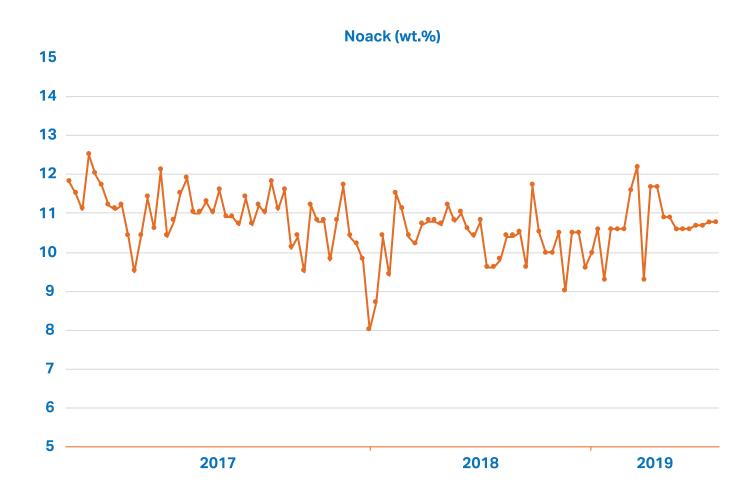
PRODUCT CONSISTENCY & STABILITY:

ADbase 4CST

ADNOC is committed to supplying a consistently high quality Group III base oil.

Viscosity Index



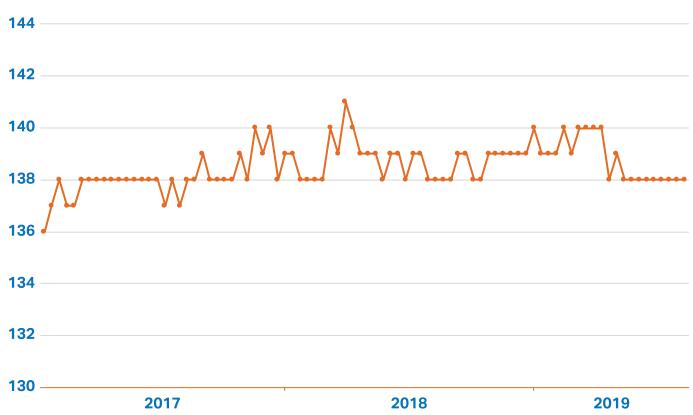


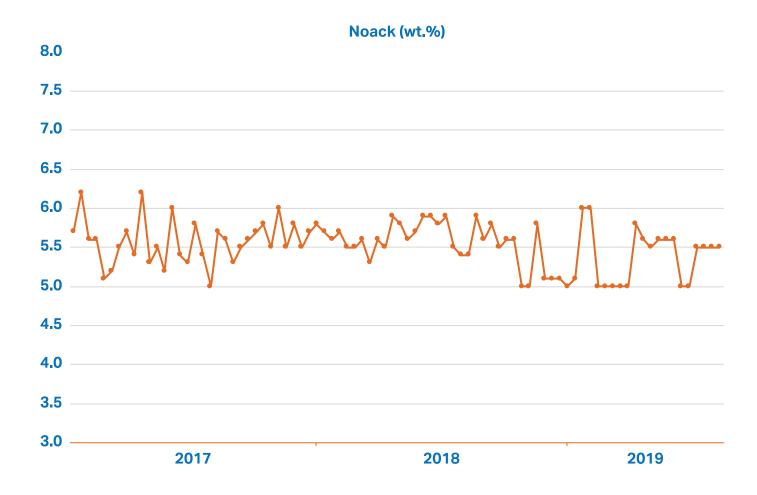
PRODUCT CONSISTENCY & STABILITY:

ADbase 6CST

High Viscosity Index Group III can generate economic advantages for lubricant blenders.







PRODUCT FORMULATION APPROVALS

OBTAINED

NORTH AMERICA, PCMO				
VISCOSITY GRADE	SERVICE CATEGORY			
0W-20				
5W-20	API SN PLUS/ ILSAC			
5W-30	GF-5			
10W-30				
0W-20	DEXOS 1 GEN 2			
5W-20				
5W-30				
0W-16	API SP/ILSAC GF-6 B			
0W-20				
5W-20	API SP/ILSAC GF-6 A			
5W-30				
ATF	GM DEXRON-VI			

EUROPEAN, PCMO			
VISCOSITY GRADE	SERVICE CATEGORY		
5W-30	ACEA C3-16		
5W-40	ACEA C3-16		
5W-30	MB-229.31		
5W-40	MB-229.31		

NORTH AMERICA, HDDEO (WITH 30% ADbase)		
VISCOSITY GRADE	SERVICE CATEGORY	
10W-30	CK-4/FA-4 Plus OEMs	
15W-40	CK-4/FA-4 Plus OEMs	

IN PROGRESS

NORTH AMERICA, HDDEO (WITH 100% ADbase)		
VISCOSITY GRADE	SERVICE CATEGORY	
5W-30	CK-4/FA-4 Plus OEMs	

EUROPEAN, PCMO		
VISCOSITY GRADE	SERVICE CATEGORY	
0W-20	ACEA C5-16	
5W-20	ACEA C5-16	
5W-30	ACEA C2-16	
5W-40	ACEA C2-16	
5W-30	MB-229.51 /MB-229.52	
5W-40	MB-229.51 /MB-229.52	
5W-30	BMW-LL04	
5W-40	BMW-LL04	
5W-30	OV-0401547	
5W-40	OV-0401547	

^{*} Visit the ADNOC website for latest information on product formulation approvals. As otherwise we risk that the data is out of date.