



APLAC T 091
“ANALYSIS OF LUBRICANTS PROFICIENCY TESTING”

To ensure the test data obtained in this program can be treated as well as possible, participants are asked to follow the instructions as below:

A. Samples

Each participant receives 1 (one) bottle of sample contains 250 gram automotive lubricant which volume is sufficient for test parameters are Kinematic Viscosity at 40°C; Kinematic Viscosity at 100°C; Total Base Number (TBN); Apparent Viscosity by Cold Cranking Simulator (CCS) and Evaporation Loss (Noack Method).

B. Testing of samples

1. Shake the sample before testing.
2. Testing is only done once.
3. Tests carried out using routine testing methods commonly used in the participating laboratory. The test method used must be described in the Test Result Sheet (Sheet 1).
4. Fill in Supporting Data Sheet (Sheet 2) by writing the requested data, to facilitate evaluation of the test.

C. Report of Test Results

1. The test report for each test parameter must be written in the Test Result Sheet.
2. Reporting test results and units used, follow the below Table:

NO	TEST PARAMETER	UNIT	REPORTING ^{*)}
Automotive Lubricants			
1	Kinematic Viscosity at 40°C	cSt	4 significant figures
2	Kinematic Viscosity at 100 °C	cSt	4 significant figures
3	Total Base Number (TBN)	mgKOH/g	3 significant figures
4	Apparent Viscosity (by CCS)	cP	4 significant figures
5	Evaporation Loss (Noack Method)	% mass	3 significant figures

^{*)} See remarks

3. Test Result Sheet (Sheet 1) and Supporting Data (Sheet 2) must be submitted to the KAN no later than **31 July 2014** to:

Dhandy Arisaktiwardhana (Mr)

E-mail : dhandy@bsn.go.id cc. aplac.t091@gmail.com

4. Laboratory participants are required to write the name of the laboratory in the test results sheet (Sheet 1). All information regarding laboratory test results are kept confidential.

Remarks:

1. The decimal rounding test result follow the following rules :
 - a. When decimal number obtained is less than 5 (five) then rounded down, but if more than 5 (five) rounded up. Example: 1.324 rounded to 1.32; 1.326 rounded to 1.33
 - b. When a decimal number of 5 (five) to be rounded of even numbers in front of it, then the number of 5 (five) will be lost, but if the figures in front of it would be odd then rounding up. Example: 1.345 rounded to 1.34; 1.355 rounded to 1.36

2. Significant Figure
 - a. 1 significant figures : 1 ; 0.1 ; 0.01 ; 0.001 ; 0.0001
 - b. 2 significant figures : 12 ; 1.2 ; 0.12 ; 0.012 ; 0.0012 ; 0.00012
 - c. 3 significant figures : 123 ; 12.3 ; 1.23 ; 0.123 ; 0.0123 ; 0.00123
 - d. 4 significant figures : 1234 ; 123.4 ; 12.34 ; 1.234 ; 0.1234 ; 0.01234



Sheet 1

APLAC T 091
“ANALYSIS OF LUBRICANTS PROFICIENCY TESTING”

TEST RESULTS DATA SHEET

Laboratory :

Date of Test :

Phone Number :

Lab. Code :

Filled by KAN

No	Test Parameter	Method *)	Unit	Test Result	Expanded Uncertainty with the coverage probability of approximately 95 %.
1	Kinematic Viscosity at 40°C		cSt		
2	Kinematic Viscosity at 100°C		cSt		
3	Total Base Number (TBN)		mgKOH/g		
4	Apparent Viscosity (CCS)		cP		
5	Evaporation Loss (Noack)		% mass		

....., 2014

Head of Laboratory,

(.....)

***) Method :**

1. ASTM
2. Please write when using other methods

This sheet is sent to KAN no later than **31 July 2014** to:

Dhandy Arisaktiwardhana (Mr)

National Accreditation Body of Indonesia (KAN)

Email : dhandy@bsn.go.id cc aplac.t091@gmail.com

SUPPORTING DATA

1	Kinematic Viscosity (40°C/100°C)		
	Apparatus	Type	Date of Calibration / Verification
	Viscometer	Manual/Automatic *)	
	Thermometer	ASTM/IP *).....	
	Stopwatch	Analog/Digital *)	
	Flow time 100°F		second
	210°F		second
	40°C		second
100°C		second	
2	Total Base Number (TBN)		
	Chemicals	Purity	Preparation
	Titran	Solution/crystal/*)	
	Solvent		
Solvent/Titran brand			
3	Apparent Viscosity (by Cold-Cranking Simulator)		
	Chemicals	Type/Brand	Expire Date
	Coolant		
	CRM		
	Apparatus	Type	Date of Calibration/Verification
	Cold Cranking Simulator	Manual/Automatic *)	
4	Evaporation Loss (Noack)		
	Apparatus	Type/accuracy	Date of Calibration/Verification
	Thermometer		
	Analytical Balance		
	Chemicals	Type/Brand	Expire Date
	CRM		
	Type	Manual/Automatic *)	
	Calibration/Verification Date		
Reference Material			

Remarks :

- **Type of thermometer** : ASTM / IP (°C/°F) *)
- **Calibration/verification date** : The date of last calibration/verification
- **Purity** : % purity of standard material or solvent being used, and mention the brand
- **Preparation** : when titrant or standard material are used instead of the standard solution, provide an explanation of how to manufacture those Titrant or standard material
- The above table is a reference to the data entry required, if the columns are not enough, please use paper/additional sheets.

This sheet is sent to KAN no later than **31 July 2014** to:

Dhandy Arisaktiwardhana (Mr)

National Accreditation Body of Indonesia (KAN)

Email : dhandy@bsn.go.id cc aplac.t091@gmail.com