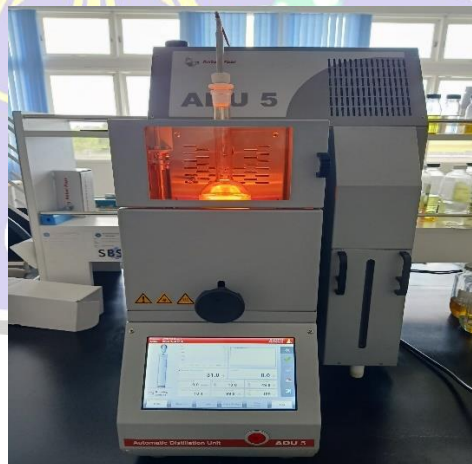
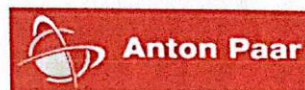


LAMPIRAN



Anton Paar GmbH
Anton Paar Strasse 10
8054 Graz
Austria



Serial Number	60035790
User	Administrator
Program	ASTM D86 Group 4
Sample Name	Minyak Plastik PP AS
Unique Measurement Id	93

Anton Paar ADU 5 - Measurement Result

Firmware Version	5.3.14
SoftwareVersion	

	1.00.3798.118
Test Description	
Date	7/12/2022
Start Time:	4:15 PM
End Time	4:46 PM
Environment	
Ambient Temperature	20.7 °C
Atmospheric Pressure	99.5 kPa
Program Parameters	
Distillation group	ASTM D86 Group 4
Manual Distillation	No
Nominal Condenser Temperature	50.0 °C
Average Condenser Temperature	50.0 °C
Nominal Chamber Temperature	18.2 °C
Average Chamber Temperature	21.0 °C
Nominal Distillation Rate	4.5 ml/min
Average Distillation Rate	4.3 ml/min
Initial heating 1	225 °C
Time for Initial heating 1	60 s
Initial heating 2	500 °C
Expected Total Recovery	98.0 %
Final Heat Adjustment	5 %
Heater Temp. Control Mode	Ok
Result Description	
Time to IBP:	111 s
Time from IBP to 5%	121 s
Time from 5 % Residue to FBP	60 s
Stop Mode	Finished with warnings
Calculations	
Cetane Index	A: 21301: B: 354
Driveability Index	-
Comments	
Date of last calibration	Thursday, July 04, 2019
Comment	

Fixpoint Table

	Recovered Volume [%]	Recovered Temperature [°C]	Corrected Temperature Reading [°C]	Time or Distillation Rate [ml/min]	Evaporated Volume [%]	Evaporated Temperature [°C]
IBP	0.0	41.6	42.1	111	0.0	
	5.0	81.8	82.4	5.8	5.0	
	10.0	95.1	95.7	4.4	10.0	80.6
	15.0	107.8	108.4	4.4	15.0	94.3
	20.0	119.9	120.5	4.5	20.0	106.9
	25.0	129.1	129.7	4.7	25.0	119.1
	30.0	135.1	135.8	4.9	30.0	129.0
	35.0	138.3	139.0	4.8	35.0	135.1
	40.0	141.4	142.1	4.6	40.0	138.9
	45.0	145.4	146.0	4.7	45.0	141.6
	50.0	148.6	149.3	4.5	50.0	145.8
	55.0	152.9	153.6	4.3	55.0	148.8
	60.0	159.0	159.7	4.3	60.0	153.5
	65.0	168.9	169.6	4.1	65.0	158.9
	68.7	179.3	180.0	4.1	68.7	165.2
	70.0	183.7	184.5	4.2	70.0	168.3
	75.0	199.8	200.6	4.3	75.0	182.5
	80.0	212.6	213.4	4.2	80.0	198.9
	85.0	229.1	229.9	3.9	85.0	211.8
	90.0	256.9	257.8	3.4	90.0	227.2
FBP	92.6	287.9	288.8	1469	92.6	

Result

Recovery	93.4 %
Residue	1.0 %
Loss	5.6 %
Total Recovery	94.4 %
Corrected Loss	4.7 %
Corrected Recovery	94.3 %
Corrected Total Recovery	95.3 %

Anton Paar GmbH
Anton Paar Strasse 10
8054 Graz
Austria



Serial Number	60035790
User	Administrator
Program	ASTM D86 Group 4
Sample Name	Minvak Plastik PP AR
Unique Measurement Id	90

Anton Paar ADU 5 - Measurement Result

Firmware Version	5.3.14
SoftwareVersion	1.00.3798.118

Test Description

Date	7/12/2022
Start Time:	1:08 PM
End Time	1:46 PM

Environment

Ambient Temperature	18.1 °C
Atmospheric Pressure	99.8 kPa

Program Parameters

Distillation group	ASTM D86 Group 4
Manual Distillation	No
Nominal Condenser Temperature	50.0 °C
Average Condenser Temperature	50.0 °C
Nominal Chamber Temperature	15.6 °C
Average Chamber Temperature	19.4 °C
Nominal Distillation Rate	4.5 ml/min
Average Distillation Rate	4.4 ml/min
Initial heating 1	250 °C
Time for Initial heating 1	60 s
Initial heating 2	525 °C
Expected Total Recovery	98.0 %
Final Heat Adjustment	5 %
Heater Temp. Control Mode	Ok

Result Description

Time to IBP:	126 s
Time from IBP to 5%	57 s
Time from 5 % Residue to FBP	159 s
Stop Mode	Finished with warnings

Calculations

Cetane Index	A: 21156; B: 351
Driveability Index	-

Comments

Date of last calibration	Thursday, July 04, 2019
Comment	

Fixpoint Table

	Recovered Volume [%]	Recovered Temperature [°C]	Corrected Temperature Reading [°C]	Time or Distillation Rate [ml/min]	Evaporated Volume [%]	Evaporated Temperature [°C]
IBP	0.0	51.0	51.4	126	0.0	
	5.0	78.5	79.0	7.3	5.0	62.3
	10.0	88.3	88.8	4.9	10.0	81.0
	15.0	97.1	97.6	4.8	15.0	90.4
	20.0	106.3	106.9	4.5	20.0	99.4
	25.0	114.9	115.5	4.5	25.0	108.4
	30.0	122.3	122.8	4.6	30.0	116.6
	35.0	127.7	128.2	4.7	35.0	123.9
	40.0	131.6	132.1	4.7	40.0	129.0
	45.0	134.5	135.1	4.7	45.0	132.7
	50.0	136.5	137.0	4.7	50.0	135.6
	55.0	138.7	139.3	4.1	55.0	137.1
	60.0	142.1	142.6	4.6	60.0	140.1
	65.0	145.3	145.9	4.4	65.0	143.2
	70.0	150.5	151.1	4.5	70.0	146.7
	75.0	158.4	159.0	4.3	75.0	152.2
	80.0	177.5	178.1	3.8	80.0	161.0
	80.3	179.4	180.0	3.7	80.3	161.7
	85.0	214.0	214.7	3.9	85.0	184.7
	90.0	248.9	249.6	3.7	90.0	219.4
	93.1	339.2	340.0	0.1	93.1	239.4
FBP	93.1	339.6	340.4	1516	93.1	

Result

Recovery	94.4 %
Residue	1.5 %
Loss	4.1 %
Total Recovery	95.9 %
Corrected Loss	3.5 %
Corrected Recovery	95.0 %
Corrected Total Recovery	96.5 %

Determination

SampleName: Air Es dan		Operator:	
SampleMass(g)	1.0000	Formula	Bunte
Capacity(J/K)		14664	
Mad(%)	1.9	Mt(%)	2.3
Sb,ad(%)	1.32	Had(%)	1.54
AutoID	Fore period	Main period	After period
1	27.634	27.895	31.206
2	27.638	29.103	31.205
3	27.641	29.886	31.203
4	27.644	30.310	31.201
5	27.646	30.541	31.199
6	27.648	30.694	31.197
7		30.801	31.194
8		30.877	31.191

9	30.937	31.188
10	30.982	31.185
11	31.020	
12	31.054	
13	31.079	
14	31.103	
15	31.122	
16	31.137	
17	31.152	
18	31.163	
19	31.173	
20	31.181	
21	31.188	
22	31.194	
23	31.198	
24	31.202	

25	31.205
26	31.207
27	31.208
28	31.209
29	31.209
30	31.209

Page 1 Total 2

Determination

31	31.209	
32	31.208	
=====		
Qb,ad(J/g)	Qgr,ad(J/g)	Qnet,ar(J/g)
53110	52922	52469

Time: 7/12/2022 10:43:26 AM

Determination

SampleName:	Minyak Plastik	Operator:	
SampleMass(g)	1.0000	Formula	Bunte
Capacity(J/K)		14664	
Mad(%)	1.9	Mt(%)	2.3
Sb,ad(%)	1.32	Had(%)	1.54
AutoID	Fore period	Main period	After period
1	27.806	28.082	31.287
2	27.808	29.306	31.286
3	27.809	30.055	31.285
4	27.810	30.438	31.283
5	27.810	30.653	31.282
6	27.811	30.792	31.278
7		30.888	31.277
8		30.958	31.274

9	31.017	31.271
10	31.061	31.268
11	31.098	
12	31.130	
13	31.157	
14	31.179	
15	31.199	
16	31.215	
17	31.229	
18	31.241	
19	31.251	
20	31.259	
21	31.266	
22	31.273	
23	31.276	
24	31.281	

25	31.284
26	31.286
27	31.287
28	31.288
29	31.288
30	31.287

Page 1 Total 2

Determination

Ob,ad(J/g)	Qgr,ad(J/g)	Qnet,ar(J/g)
51761	51574	51121
Time:	7/12/2022 9:49:06 AM	