

# Test Report

Instrument	Diana 700
Serial number	60088208
Software version	1.4.2 16149
Multi-plug serial number	27579473
Operator	Service
Method	ASTM D86 Group 2 Gasoline
Measurement ID	18

## Test description

Start time	11/24/2020 10:58 AM
End time	11/24/2020 11:30 AM

## Environment

Ambient temperature	23.6 °C
Barometric pressure	846 mbar
Relative humidity	69 %

## Method parameters

Manual temperature acquisition	No
Average condenser temperature	2.5 °C (OK)
Average chamber temperature	15.5 °C (OK)
Average distillation rate	4.51 mL/min (OK)
Heater control mode	Automatic
Heater control type	ASTM D86/ISO 3405/GOST 2177A, group 2
Final heat adjustment activated	Yes
Final heat adjustment at	90.5 %
Changed heater power by	10 %
Ethanol content	0.0 %

Sample: **Motorsport 102 Unleaded**  
Method: **ASTM D86 Group 2 Gasoline**



## Result description

Time to IBP	<b>5 min 9 s (OK)</b>
Time from IBP to 5 %	<b>1 min 20 s (OK)</b>
Time from 5 % residue to FBP	<b>2 min 40 s (OK)</b>
Test status	<b>Finished with warnings</b>
Stop criterion	<b>End point</b>

## Warnings

ID	Message
20016	Volume detection problem. Check the drip plate in the receiving cylinder.

## Result

Initial volume	<b>99.0 mL</b>
Recovery	<b>97.0 %</b>
Corrected recovery	<b>98.2 %</b>
Residue	<b>0.8 %</b>
Loss	<b>2.2 %</b>
Corrected loss	<b>1.0 %</b>
Total recovery	<b>97.8 %</b>
Corrected total recovery	<b>99.0 %</b>
Driveability index	<b>594</b>

## Comments

—

## Data table

	Vol. [%]	Rate [mL/min]	T(rec) [°C]	T(corr) [°C]	T(evap) [°C]
IBP	IBP	5:09	35.1	39.8	39.8
Vol.	5.0	79 s	55.4	60.4	55.2
Vol.	10.0	4.63	62.8	67.8	64.9
T(evap)	13.8	—	—	—	70.0
Vol.	15.0	4.38	69.3	74.5	71.7
Vol.	20.0	4.50	75.8	81.0	78.2
Vol.	25.0	4.50	82.3	87.6	84.8
Vol.	30.0	4.53	88.5	93.9	91.0
Vol.	35.0	4.43	93.8	99.3	97.2
T(evap)	37.8	—	—	—	100.0
Vol.	40.0	4.66	98.4	104.0	102.1
Vol.	45.0	4.41	102.1	107.8	106.4
Vol.	50.0	4.59	105.3	111.0	109.6
Vol.	55.0	4.65	108.0	113.7	112.6
Vol.	60.0	4.62	110.7	116.5	115.2
Vol.	65.0	4.63	113.4	119.2	118.1
Vol.	70.0	4.60	116.8	122.7	121.1
Vol.	75.0	4.51	121.0	127.0	124.8
Vol.	80.0	4.52	127.5	133.6	130.4
Vol.	85.0	4.47	137.0	143.2	138.8
Vol.	90.0	4.28	148.7	155.0	149.6
T(evap)	90.2	—	—	—	150.0
Vol.	95.0	—	165.9	172.5	162.2
FBP	96.7	160 s	185.2	192.1	192.1

Sample: **Motorsport 102 Unleaded**  
Method: **ASTM D86 Group 2 Gasoline**



**Anton Paar**

### \* Graph

