



Order No.: 42044-1
 Order No.:
 Date of Reception: 2023/3/19
 Sample(s) Received at:
 Date of Financial Approval: 2023/4/4
 Date of Financial Verifying:
 Date of Test: 2023/5/24
 Testing End Date:
 Date of Issue: 2023/5/24
 Current Date:
 Revision No.: 0
 Revision No.:
 Page: 1 of 8
 Page:

Client Name: Ata Polymer Sanat Aras
 Client Reference No.: 01/1/840
 Client Reference Number:
 Address: NO.22,Phase2,Aras Area
 Customer Address:
 Sample Name: SAMPLE
 Sample Name:

Lab Environmental Conditions
 - Temperature: 23°C
 Humidity: 53%
 Test was performed under the scope of ISO/IEC 17025
 Sampling was done by the customer.

DSC(Differential Scanning Calorimetry)

According to: ISO 11357-3:18

Result

Instrument Specification	Pan	Gas Specification	Mass mg	Calibration	Heating rate °C/min	N2 purity %	Heating range °C
DSC200 F3Maia	Aluminium 16 mg radius:5mm	N2(50 ml/min)	12	By temperature & sensitivity	10	99.9999	25-300

- Onset temperature : 254.9°C
- Midpoint temperature : 260.7°C
- End temperature : 264.5°C

Note

- DSC spectrum is attached.



- Approved laboratory by INSO, MHME & ED
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- Selected as premier laboratory by IHTLN in 6 consecutive years

Expert

Sasmininghal

Technical Manager

Sasmininghal

Laboratory Manager

M. Jaterian

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 (+98)(912) 7990870 Fax: (+98)(21) 46831597 - 46843371 Website: www.razi-center.net Email: info@razi-center.net



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 Client Reference No.: 01/1/840
 Client Reference Number:

Address: NO.22,Phase2,Aras Area
 Customer Address:

Sample Name: SAMPLE
 Sample Name:

Lab. Environmental Conditions

- Temperature: 23°C
 - Humidity: 53%

Test was performed under the scope of ISO/IEC 17025

Sampling was done by the customer.

Density Determination

According to: ISO 1183-1:2019(method A),ISIRI 7090-1(Method A)

Results of density test at 23°C & 50% relative humidity:

No.	Density		Specific gravity
	(g/cm ³)	(kg/m ³)	
1	1.346	1346	1.351
2	1.344	1344	1.349
3	1.343	1343	1.348
average	1.344	1344	1.349

Note

- The temperature of methanol is 23°C.
- The specimens were prepared by cutting & prior to testing they were conditioned @ Standard laboratory conditions (23±2°C & 50±5% relative humidity) for 24 hours.
- According to the standard, at least 3 specimens shall be tested.
- Date : 2023.04.16



Expert

Sasanineghal

Technical Manager

Sasanineghal

Laboratory Manager

M. Jafarian

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 Page: 3 of 8

Client Name: Ata Polymer Sanat Aras
 Client Reference No.: 01/1/840
 Client Reference Number:
 Address: NO.22,Phase2,Aras Area
 Customer Address:
 Sample Name: SAMPLE
 Sample Name:
 Sample Name:

Lab. Environmental Conditions
 - Temperature: 23°C
 - Humidity: 53%
 - Moisture:
 Test was performed under the scope of ISO/IEC 17025

Sampling was done by the customer.

Hardness Test

According to: ISO 868

Result

- Result of hardness test is:

Row	Shore D
1	79
2	78
3	80
4	80
5	79
Average	79

Notes

- Prior to testing, the specimens were conditioned @ standard laboratory conditions (23±2°C) for 24 hours.
- Serial number (D) : 13241, Date of last calibration : 1402/01/21, Calibration due date: 3months.Date of test:1402/01/30

Expert

Jasaminoghhal

Technical Manager

Jasaminoghhal

Laboratory Manager

M. Jafarian

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Order No.:

420

Customer Name:

Ata Polymer Sanat Aras

Date of Reception:

202

Client Reference No.:

01/1/840

Sample(s) Received at:

202

Client Reference Number:

01/1/840

Date of Financial Approval:

202

Client Reference Number:

01/1/840

Date of Financial Verifying:

202

Client Reference Number:

01/1/840

Date of Test:

202

Client Reference Number:

01/1/840

Testing End Date:

202

Client Reference Number:

01/1/840

Date of Issue:

202

Client Reference Number:

01/1/840

Current Date:

202

Client Reference Number:

01/1/840

Revision No.:

0

Client Reference Number:

01/1/840

Page:

4

Determination of Charpy Impact Strength (no notch)

According to: BS EN ISO 179-1:2010+A2:2013

Result: Result of impact test at 23°C & 50% relative humidity:

No.	Dimension width * thickness (mm * mm)	Impact Energy (J)	Impact Strength (KJ/m ²)	Type of Break
1	10.12*2.01	1.20	58.99	Non-break (NB)
2	10.07*2.00	1.58	78.45	Non-break (NB)
3	10.23*1.99	1.33	65.33	Non-break (NB)
4	10.16*2.00	1.64	80.71	Non-break (NB)
5	9.74*2.03	1.29	65.24	Non-break (NB)
6	10.00*2.01	1.00	49.75	Non-break (NB)
7	10.06*2.03	1.33	65.13	Non-break (NB)
8	10.09*2.00	1.34	66.40	Non-break (NB)
9	10.09*2.00	1.10	54.51	Non-break (NB)
10	10.03*2.00	1.17	58.33	Non-break (NB)
Average			64.28	
Standard Deviation			9.71	

Notes

- Specimens were tested by the pendulum with capacity = 5J
- The specimens were prepared by cutting & prior to testing they were conditioned @ standard laboratory conditions (23±2°C & 50±5% relative humidity) for 24 hours.
- According to the standard, at least 10 specimens shall be tested.

Lab. Environmental Conditions

- Temperature:

23°C

- Humidity:

53%

Test was performed under the scope of ISO/IEC 17025

Sampling was done by the customer.

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Expert

Technical Manager

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 Page: 5 of 8

Client Name:
Customer Name

Ata Polymer Sanat Aras

Client Reference No.:
Client Reference Number:

01/1/840

Address:
Customer Address:

NO.22,Phase2,Aras Area

Sample Name:
Sample Name:

SAMPLE

Lab. Environmental Conditions

- Temperature:
 - Humidity:
 - Moisture:

of scope the under performed
 was Test ISO/IEC17025
 standard.

Sampling was done by the customer.

Water Absorption

According to: ISO 62-2008

Description

- The test specimens were kept at 50°C for 24 hours & then in water at room temperature for 24 hours.

Result

- Water absorption of the sample is equal to 1.46 % (w.w).

Note

- The test was done on 3 specimens & average of results were reported.



Expert

Technical Manager

Laboratory Manager

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 Page: 6
 Page: 8

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 Client Reference No.: 01/1/840
 Client Reference Number:
 Address: NO.22,Phase2,Aras Area
 Customer Address:
 Sample Name: SAMPLE
 Sample Name:

Lab. Environmental Conditions

- Temperature: 15
 Humidity: 50
 Moisture: 50
 of scope the under performed was Test ISO/IEC17025 standard.

Sampling was done by the customer.

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Expert

Asaniranghal

Technical Manager

Asaniranghal

Laboratory Manager

M. Jafarian

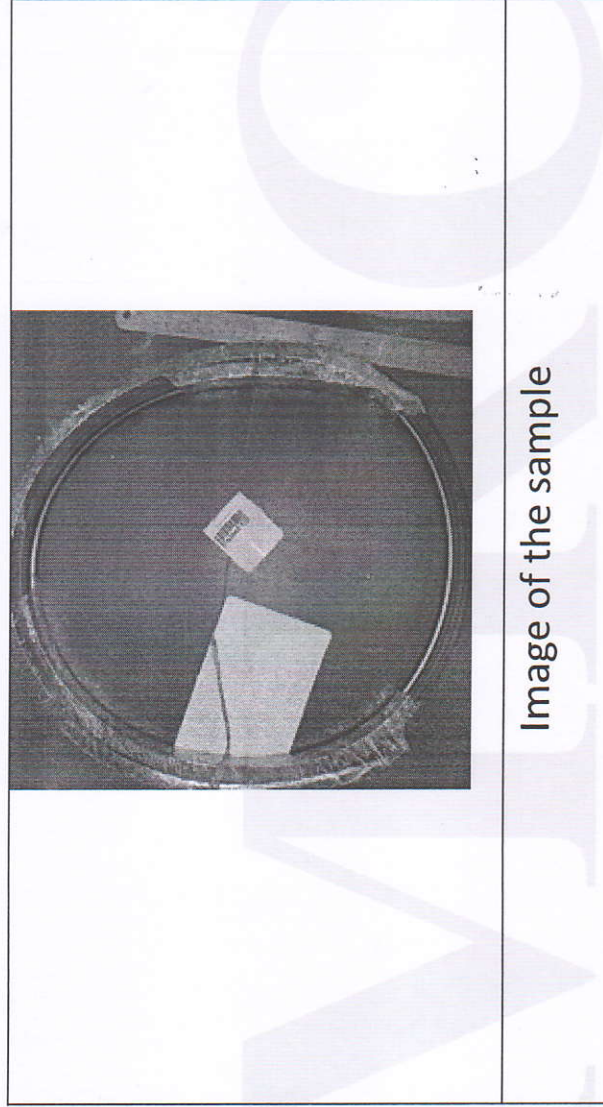


Image of the sample

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 Page: 7 of 8

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 Address: NO.22,Phase2,Aras Area
 Customer Address:
 Sample Name: SAMPLE
 Sample Name:

Lab. Environmental Conditions
 - Temperature:
 - Humidity:
 - Moisture:
 of scope the under performed was Test ISO/IEC17025 standard.
 Sampling was done by the customer.

Tensile test

According to: **BS EN ISO 527-2:2017&BS EN ISO 527-4:2022**

- Results of tensile test at 50% relative humidity and 23°C:

No.	width (mm)	Thickness (mm)	Initial Area (mm ²)	gauge length (mm)	Speed (mm/min)	Force (N)		Elongation (%)		Tensile Strength (MPa)	
						at Yield Point	at Break	at Yield Point	at Break	at Yield Point	at Break
1	10.38	2.00	20.76	50	876.07	888.53	8	36	42.2	42.8	
2	10.00	2.01	20.10	50	858.27	864.30	10	40	42.7	43.0	
3	10.99	2.02	22.20	50	927.95	932.39	9	41	41.8	42.0	
4	10.69	2.00	21.38	50	934.31	936.44	10	37	43.7	43.8	
5	10.88	2.02	21.98	50	956.03	969.21	9	30	43.5	44.1	
Average											
Standard deviation											

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Expert
 Technical Manager
 Laboratory Manager
 M. Jafarian

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Client Name: Ata Polymer Sanat Aras

Client Reference No.: 01/1/840
 Client Reference Number:

Address: NO.22,Phase2,Aras Area

Sample Name: SAMPLE
 Sample Name:

Lab. Environmental Conditions

- Temperature:
 Temperature:
 - Humidity:
 Moisture:

of scope the under performed
 was Test ISO/IEC17025
 standard.

Sampling was done by the customer.

Approved laboratory by INSO,
 MHME & ED
 for 48 hours.

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Expert

Asanmoghhal

Technical Manager

Asanmoghhal

Lab. Manager

M. Jafarian

- Results of tensile test after exposure to water for 1000 hours at room temperature and then exposure at air at ambient temperature for 24 hours

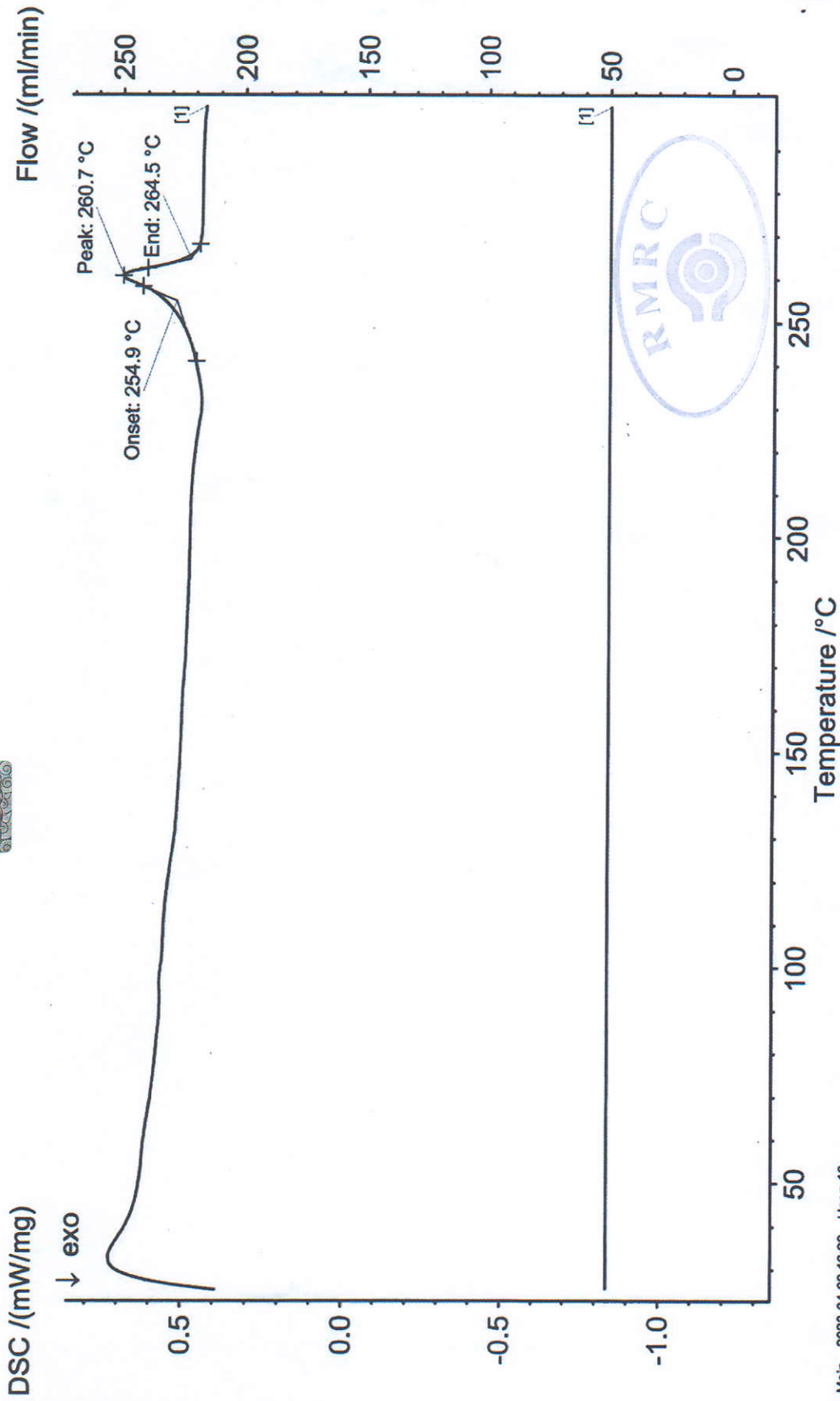
No.	width (mm)	Thickness (mm)	Initial Area (mm ²)	gauge length (mm)	Speed (mm/min)	Force (N)		Elongation (%)		Tensile Strength (MPa)	
						at Yield Point	at Break	at Yield Point	at Break	at Yield Point	at Break
1	10.68	2.01	21.47	50	50	566.72	579.60	34	73	26.4	27.0
2	9.79	2.04	19.97	50	50	513.27	527.25	30	53	25.7	26.4
3	10.39	2.04	21.20	50	50	534.13	548.97	34	74	25.2	25.9
4	10.76	2.03	21.84	50	50	567.91	574.47	42	86	26.0	26.3
5	10.88	2.01	21.87	50	50	551.09	572.96	23	42	25.2	26.2
Average								33	66	25.7	26.4
Standard deviation								6.91	17.7	0.52	0.40

- After exposure to water, tensile strength at break decreased by 38.7% and elongation at break increased 78%.

Notes

- The specimen was prepared by cutting (strip type) and prior to testing they were conditioned at standard laboratory conditions (23±2°C and 50±5% relative humidity) for 24 hours.
- According to the standard, at least 5 specimens shall be tested.
- Date of test :2023.05.23

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Main 2023-04-09 16:02 User: 10

Instrument : NETZSCH DSC 200F3 240-20-0648-L File : C:\NETZSCH\Proteus\data5\42044-1.ngb-dd5

Project : Calibration Identity : 42044-1 Date/time : 4/9/2023 3:30:00 PM Laboratory : Razi Metal. res. Ctr. Operator : MAK Sample : CsCl, 11 mg	Reference : Empty, 0 mg Material : Zn Corr./temp.cal : mp-25-400.ngb-bd5 / TempCal-05021401.ngb-td5 Sens.file : SensCal-05021401.ngb-ed5 Range : 25/10.0(K/min)/300 Sample car./TC : DSC 200F3 t-sensor / E	Mode/type of meas. : DSC / sample with correction Segments : 1/1 Crucible : Pan Al, open Atmosphere : N2, 50.0ml/min / N2, 50.0ml/min Corr/m. range : 020/5000 µV
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