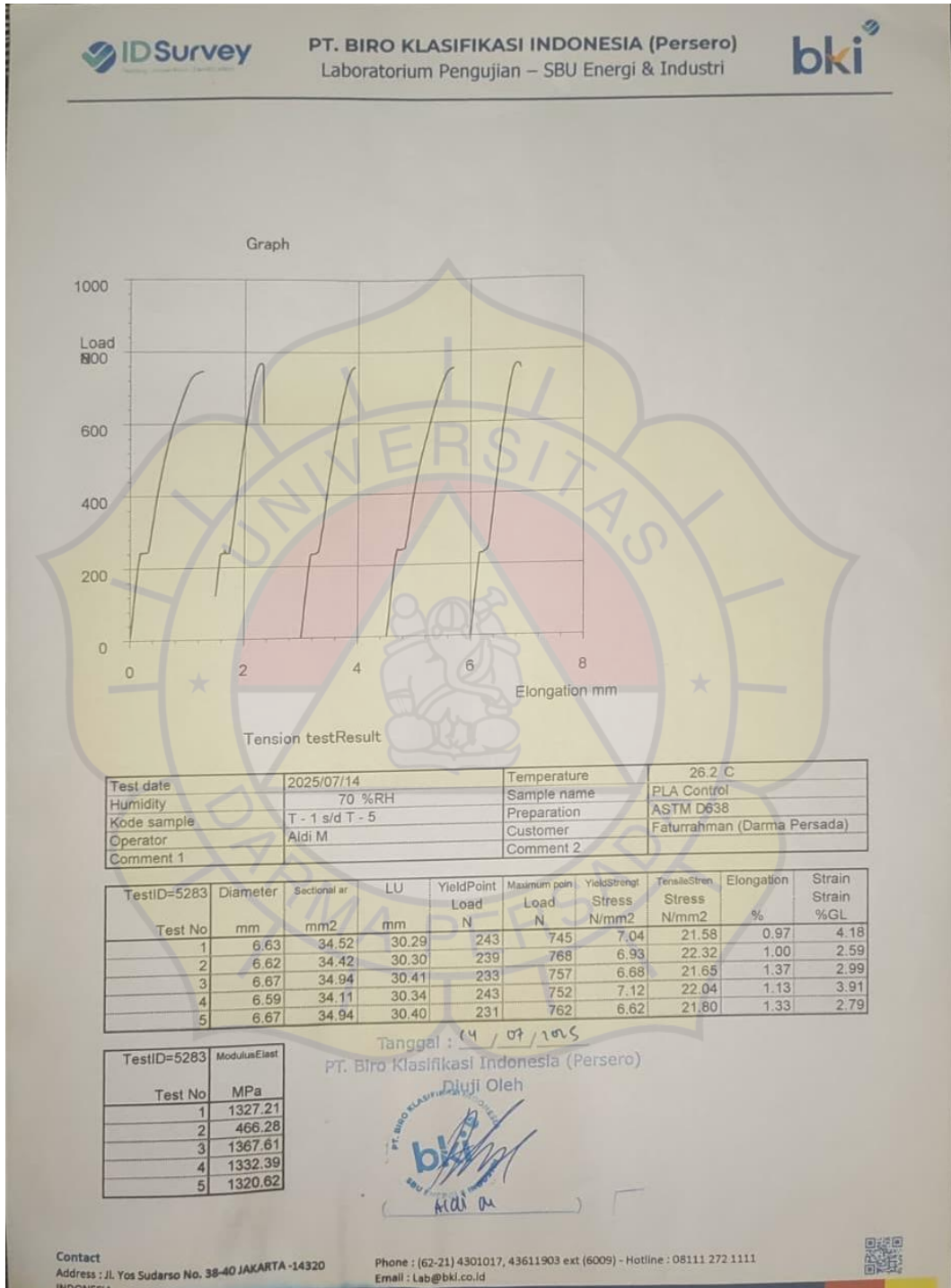


# LAMPIRAN

Lampiran 1. Data Hasil Uji Tarik Tiap Spesimen



Graph



Tension testResult

Test date	2025/07/14	Temperature	26.2 C
Humidity	70 %RH	Sample name	PLA 1 mm (RFW)
Kode sample	T - 1 s/d T - 5	Preparation	ASTM D638
Operator	Aldi M	Customer	Fauzan (Darma Persada)
Comment 1		Comment 2	

TestID=5277	Diameter	Sectional ar	LU	YieldPoint Load	Maximum poin Load	YieldStrengt Stress	TensileStren Stress	Elongation	Strain Strain
Test No	mm	mm2	mm	N	N	N/mm2	N/mm2	%	%GL
1	6.60	34.21	35.04	238	376	6.95	10.99	0.11	1.15
2	6.63	34.52	35.10	251	376	7.26	10.90	0.29	1.59
3	6.57	33.90	35.06	46	67	1.36	1.99	0.17	0.23
4	6.63	34.52	35.17	188	242	5.44	7.01	0.49	0.74
5	6.63	34.52	35.08	143	214	4.14	6.20	0.23	0.57

TestID=5277	ModulusElast
Test No	MPa
1	1664.90
2	1237.59
3	597.62
4	1236.30
5	1195.12

Tanggal : 14 / 07 / 2025  
PT. Biro Klasifikasi Indonesia (Persero)  
Diuji Oleh

*(Signature)*  
Aldi M.



Graph



Tension testResult

Test date	2025/07/14	Temperature	26.2 C
Humidity	70 %RH	Sample name	PLA 3 mm (RFW)
Kode sample	T - 1 s/d T - 5	Preparation	ASTM D638
Operator	Aldi M	Customer	Fauzan (Darma Persada)
Comment 1		Comment 2	

TestID=5279	Diameter	Sectional ar	LU	YieldPoint Load	Maximum poin Load	YieldStrengt Stress	TensileStren Stress	Elongation	Strain
Test No	mm	mm2	mm	N	N	N/mm2	N/mm2	%	%GL
1	6.62	34.42	35.10	151	201	4.38	5.84	0.29	0.51
2	6.60	34.21	35.15	235	268	6.86	7.83	0.43	1.54
3	6.63	34.52	35.04	130	166	3.75	4.81	0.11	0.51
4	6.63	34.52	35.27	238	364	6.90	10.55	0.77	2.39
5	6.61	34.32	35.17	246	320	7.18	9.32	0.49	1.76

TestID=5279	ModulusElast
Test No	MPa
1	1202.85
2	1173.22
3	1126.99
4	1181.12
5	1175.13

Tanggal: 14 / 07 / 2025  
PT. Biro Klasifikasi Indonesia (Persero)  
Uji Tarik Oleh

*(Signature)*  
Aldi M



Graph



Tension testResult

Test date	2025/07/14	Temperature	26.2 C
Humidity	70 %RH	Sample name	PLA 5 mm (RFW)
Kode sample	T - 1 s/d T - 5	Preparation	ASTM D638
Operator	Aldi M	Customer	Fauzan (Darma Persada)
Comment 1		Comment 2	

TestID=5282	Diameter	Sectional ar	LU	YieldPoint Load	Maximum pain Load	YieldStrengt Stress	TensileStren Stress	Elongation	Strain Strain
Test No	mm	mm2	mm	N	N	N/mm2	N/mm2	%	%GL
1	6.65	34.73	35.14	234	273	6.73	7.85	0.40	2.39
2	6.67	34.94	35.18	216	228	6.17	6.53	0.51	1.14
3	6.62	34.42	35.20	237	298	6.89	8.64	0.57	1.36
4	6.61	34.32	35.17	231	281	6.72	8.20	0.49	1.65
5	6.65	34.73	35.05	216	236	6.21	6.79	0.14	1.25

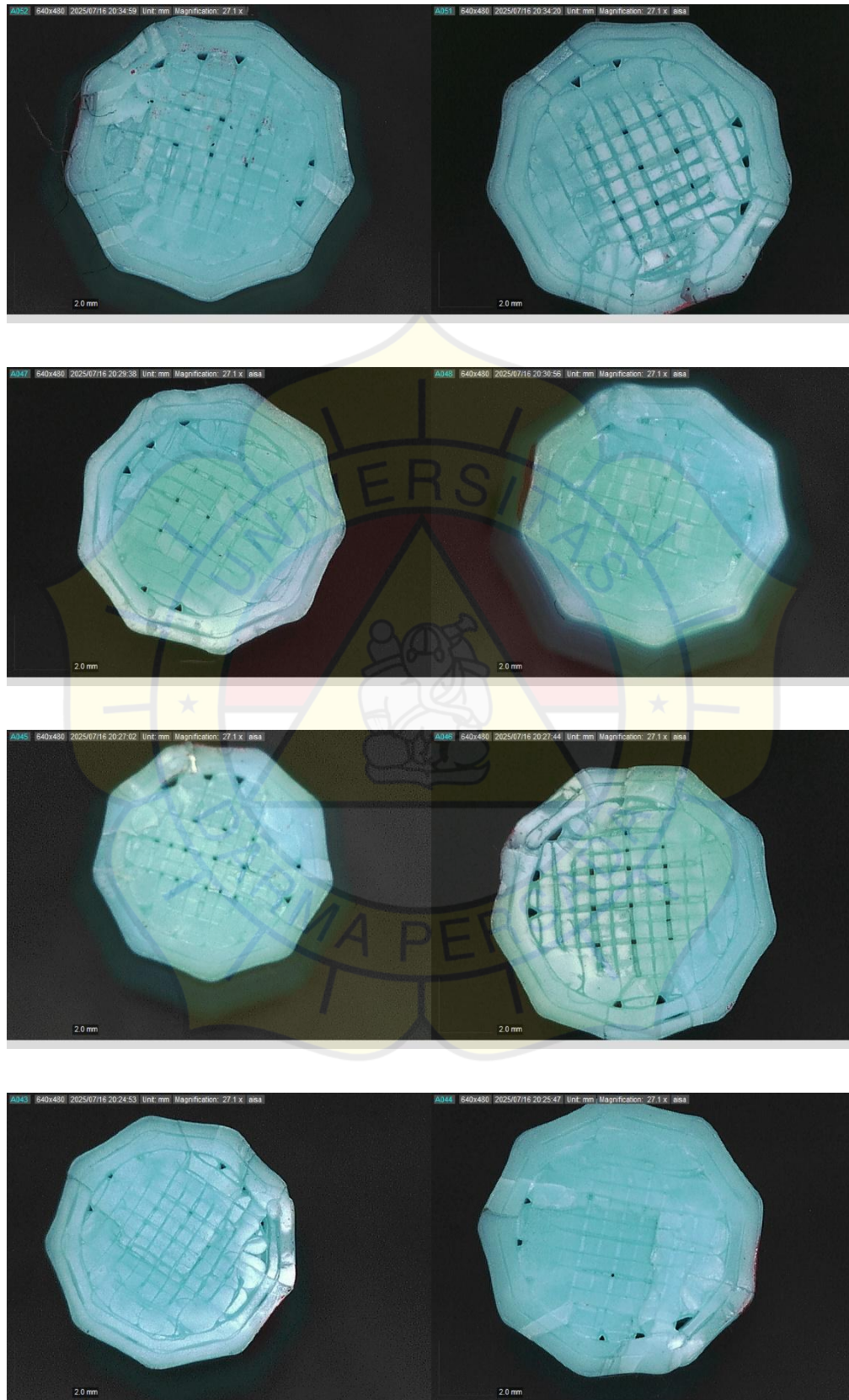
TestID=5282	ModulusElast
Test No	MPa
1	964.71
2	1133.29
3	1227.25
4	1149.96
5	1171.17

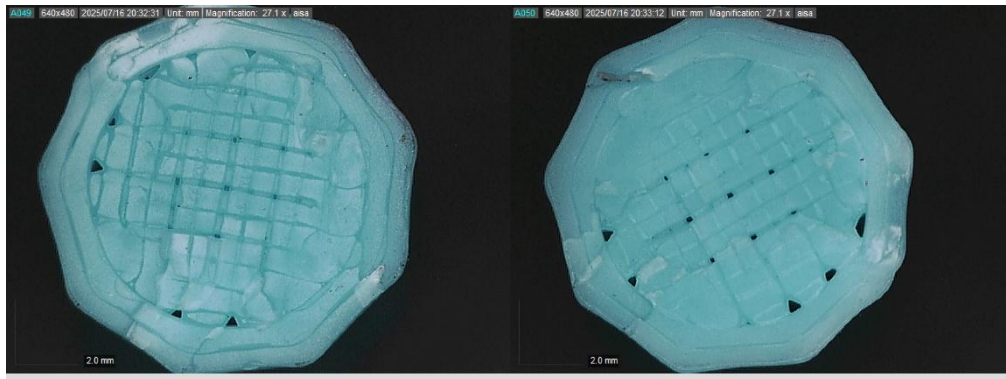
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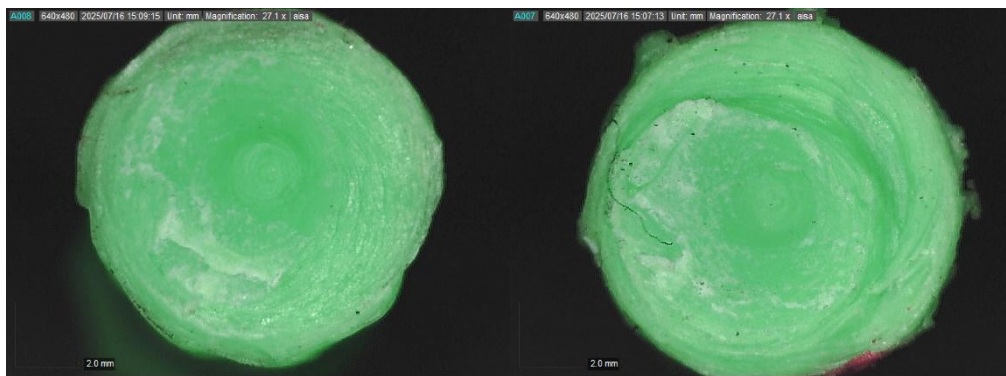


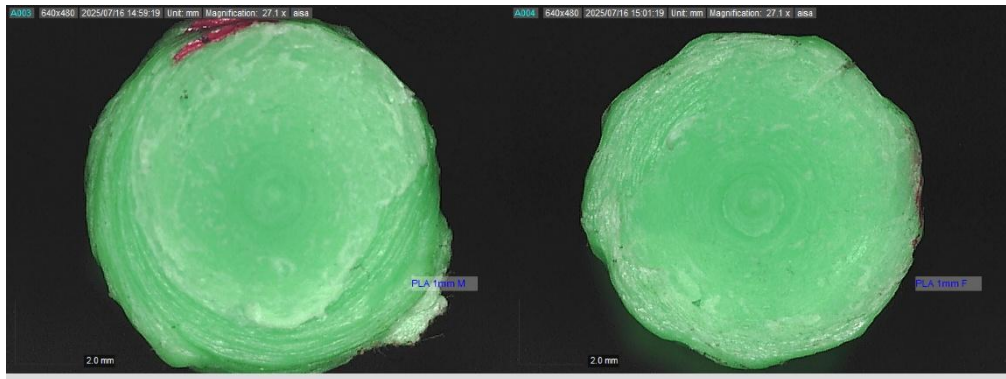
## Lampiran 2. Hasil Uji Mikrostruktur Spesimen PLA Control



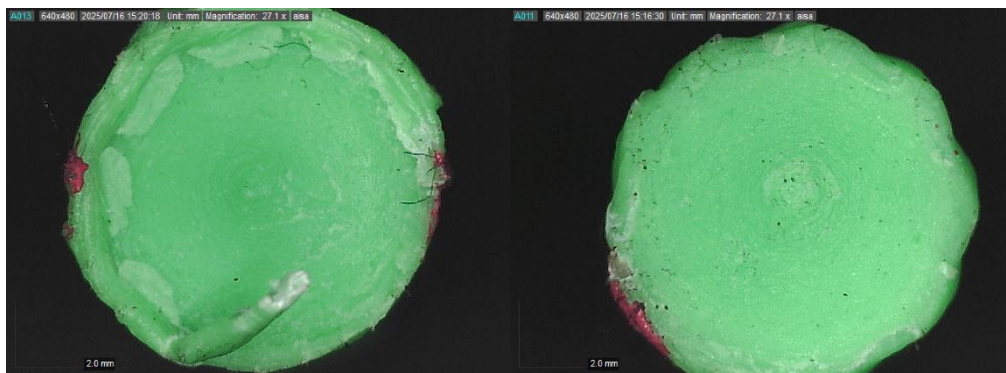


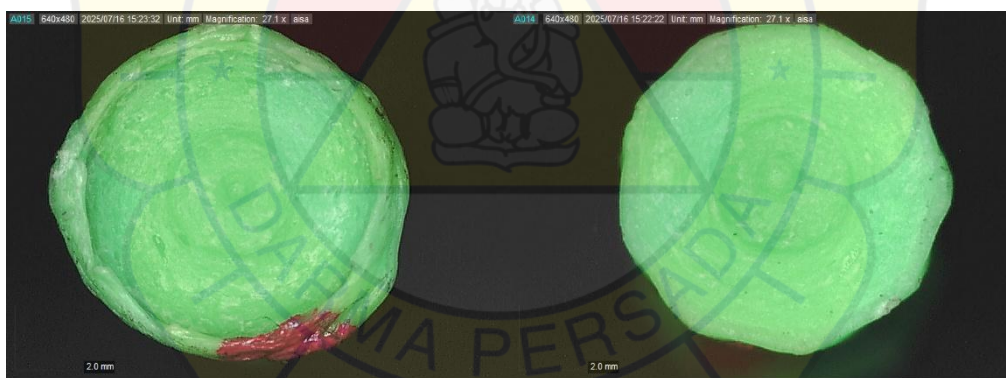
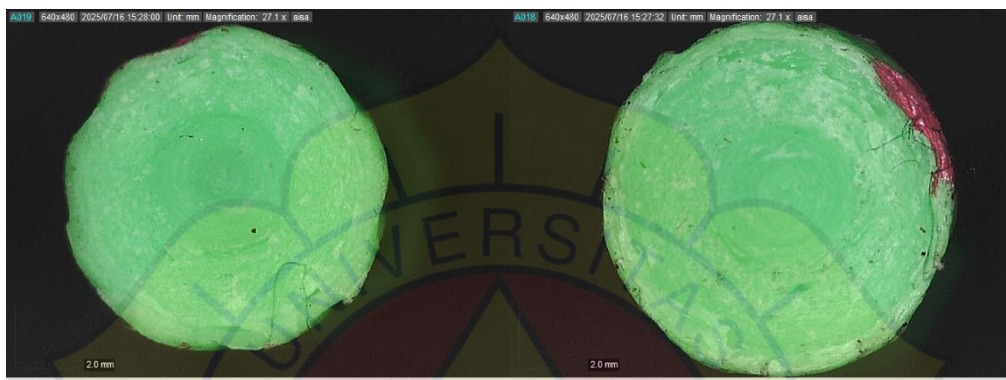
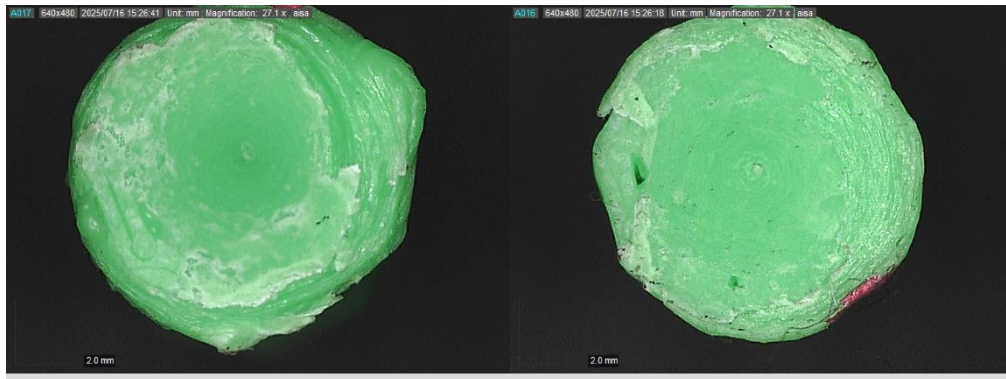
Lampiran 3. Hasil Uji Mikrostruktur Spesimen *Interlocking* 1mm



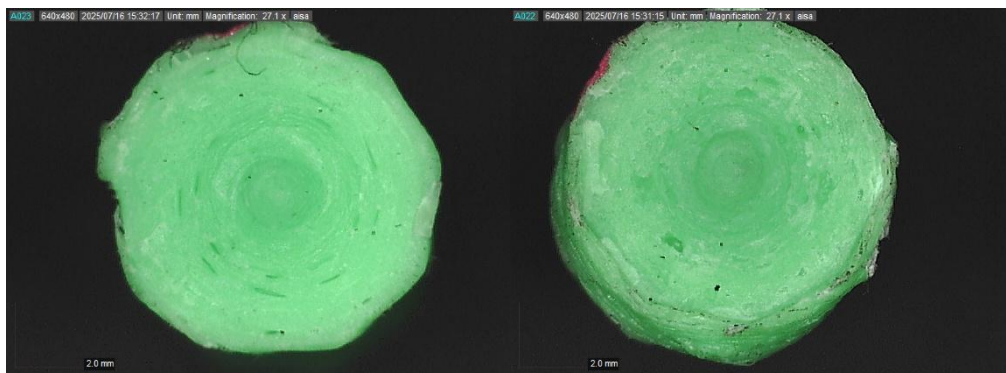


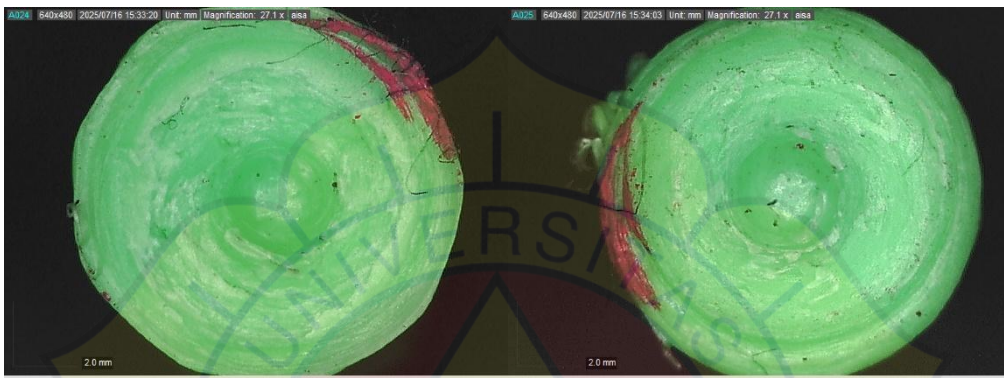
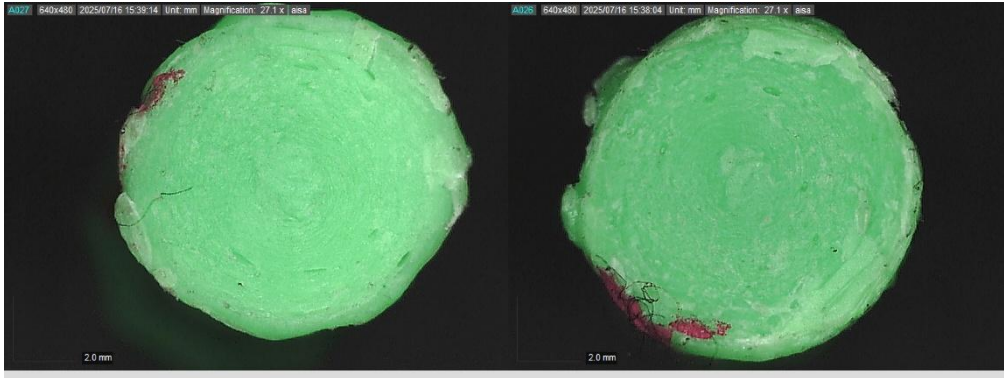
Lampiran 4. Hasil Uji Mikrostruktur Spesimen *Interlocking* 3mm





Lampiran 5. Hasil Uji Mikrostruktur Spesimen *Interlocking* 5mm





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PADA MATERIAL PLA HASIL CETAK 3D

Penulis : Fauzan Al Fathurrahman

NIM : **2021250011**

Tgl pemeriksaan : 20 Oktober 2025

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