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LAMPIRAN I

TABEL DAN GRAFIK HASIL PENELITIAN

Grafik Uji Bending Hasil *Friction Surfacing*

LAB. METALURGI FISIKA T. MESIN FT-UH

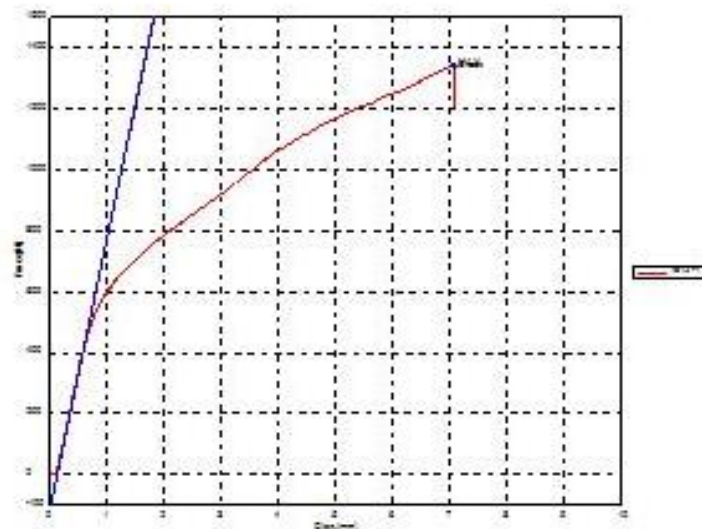
BENDING KOMPOSIT

Product Name	Komposit	Method File Name	Bending Komposit_Max
Operator	Edi Iskandar	Report Date	2020/12/01
Test Date	2020/12/01	Speed	1mm/min

Name	Thickness	Width	Lower_Support
Unit	mm	mm	mm
Ts 12-1	4.3000	9.0000	3.3000
Ts 12-2	4.3000	9.0000	3.3000
Ts 12-3	4.3000	9.0000	3.3000

Name	YS1_Force	YS1_Disp.	Max_Force	Max_Disp.
Parameters	0.2 %	0.2 %	Calc. at Entire Area	Calc. at Entire Area
Unit	N	mm	N	mm
Ts 12-1	382.393	0.35110	1345.34	7.05873
Ts 12-2	391.391	0.35900	997.972	1.84417
Ts 12-3	389.475	0.36800	1373.71	8.00587

Name	Break_Force	Break_Disp.	Slope_Standard
Parameters	Sensitivity 10	Sensitivity 10	Force 100 - 200 N
Unit	N	mm	N/mm
Ts 12-1	1341.08	7.06910	897.587
Ts 12-2	944.372	1.93250	1728.33
Ts 12-3	1371.75	8.02893	1023.25



LAB. METALURGI FISIK T. MESIN FT-UH

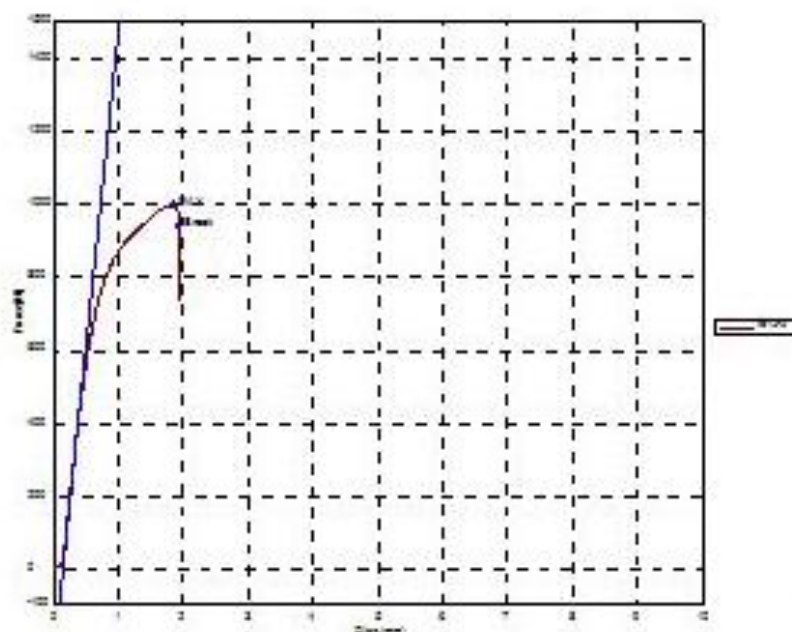
BENDING KOMPOSIT

Product Name **Komposit** **Method File Name** **Bending.komposit.Max**
Operator **Edi Iskandar** **Report Date** **2020/12/01**
Test Date **2020/12/01** **Speed** **1mm/min**

Name	Thickness	Width	Lower Support
Unit	mm	mm	mm
Ts12-1	4.3000	9.0000	3.3000
Ts12-2	4.3000	9.0000	3.3000
Ts12-3	4.3000	9.0000	3.3000

Name	YS1_Force	YS1_Disp.	Max_Force	Max_Disp.
Parameters	0.2%	0.2%	Calc. at Entire Area	Calc. at Entire Area
Unit	N	mm	N	mm
Ts12-1	392.390	0.35110	1345.54	7.03873
Ts12-2	391.591	0.35900	997.972	1.84417
Ts12-3	389.475	0.30803	1373.71	8.00587

Name	Break_Force	Break_Disp.	Slope_Standard
Parameters	Sensitivity 10	Sensitivity 10	Force: 100 - 200 N
Unit	N	mm	N/mm
Ts12-1	1341.08	7.06910	897.587
Ts12-2	944.372	1.90230	1728.33
Ts12-3	1371.75	8.02893	1023.25



LAB. METALURGI FISIKA T. MESIN FT-UH

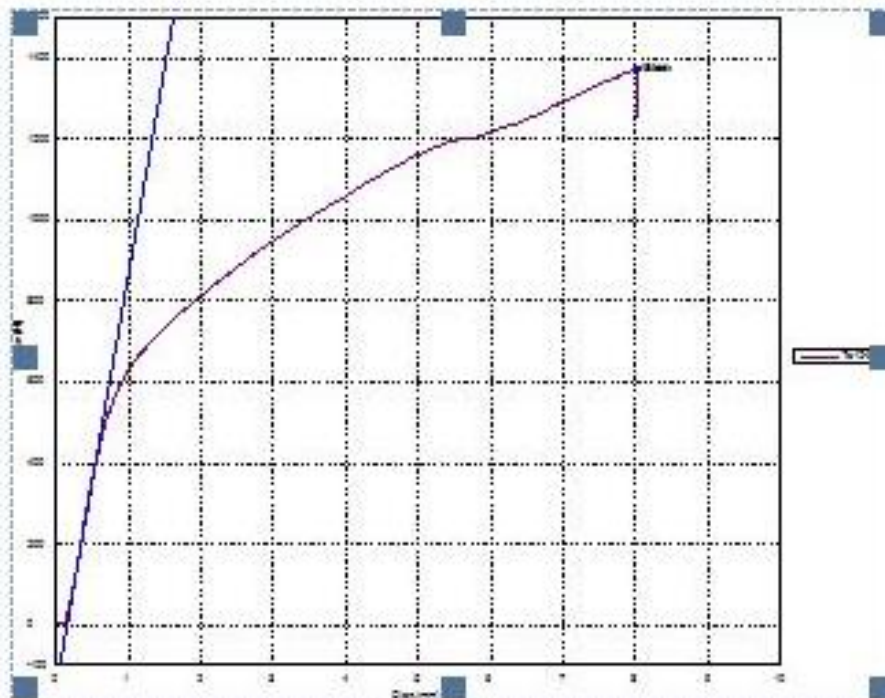
BENDING KOMPOSIT

Product Name: Komposit
Operator: Edi Iskandar
Test Date: 2020/12/01
Method File Name: Bending komposit.max
Report Date: 2020/12/01
Speed: 1mm/min

Name	Thickness	Width	Lower Support
Unit	mm	mm	mm
Ts12-1	4.3000	9.0000	3.3000
Ts12-2	4.3000	9.0000	3.3000
Ts12-3	4.3000	9.0000	3.3000

Name	YS1_Force	YS1_Disp.	Max_Force	Max_Disp.
Parameters	0.2 %	0.2 %	Calc. at Entire Area	Calc. at Entire Area
Unit	N	mm	N	mm
Ts12-1	392.393	0.33110	1343.34	7.03673
Ts12-2	391.391	0.33900	997.972	1.94417
Ts12-3	389.475	0.30803	1373.71	9.00587

Name	Break_Force	Break_Disp.	Slope_Standard
Parameters	Sensitivity 10	Sensitivity 10	Force 100 - 200 N
Unit	N	mm	N/mm
Ts12-1	1341.09	7.06910	99.7387
Ts12-2	944.372	1.93250	1728.33
Ts12-3	1371.75	9.02893	1023.25



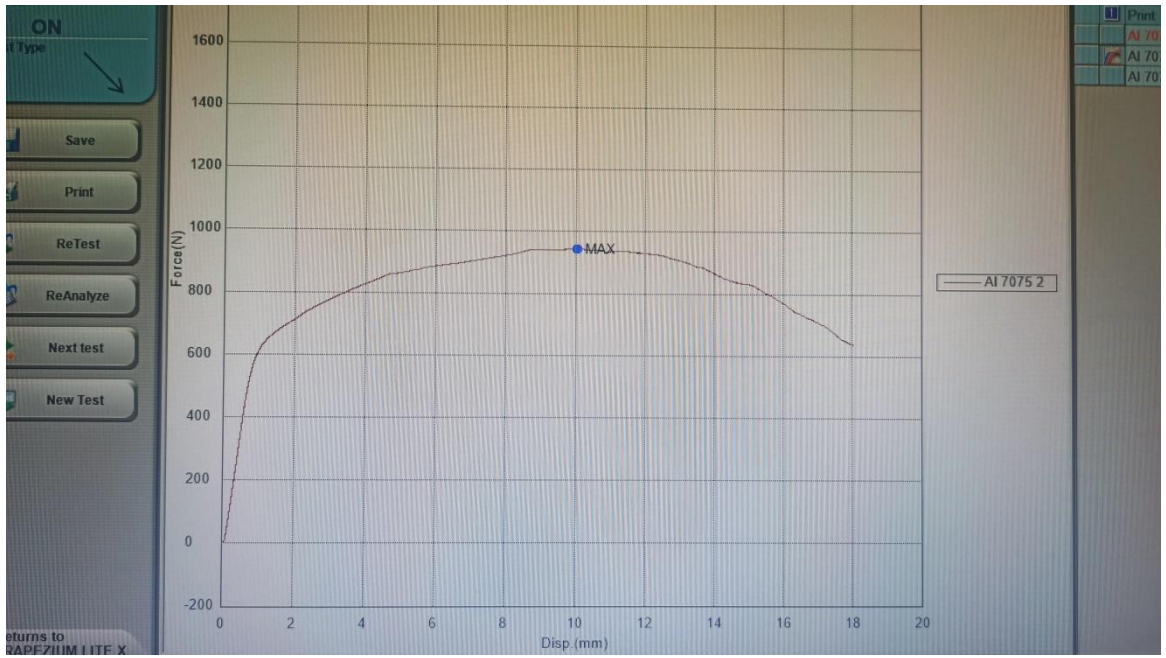
Grafik Uji Bending Hasil *Friction Surfacing*

Key Word		Product Name	
Test File Name	FRICION BENDING_2021	Method File Name	FRICION BENDING.Imax
Report Date	2021/02/18	Test Date	2021/02/18
Test Type	3 Point Bend	Speed	1mm/min
Shape	Plate	No of Batches:	1
Qty/Batch:	3		

Name	Thickness	Width	Lower_Support
Unit	mm	mm	mm
AI 7075 1	2.7000	10.0000	30.0000
AI 7075 2	2.7000	10.0000	30.0000
AI 7075 3	2.7000	10.0000	30.0000

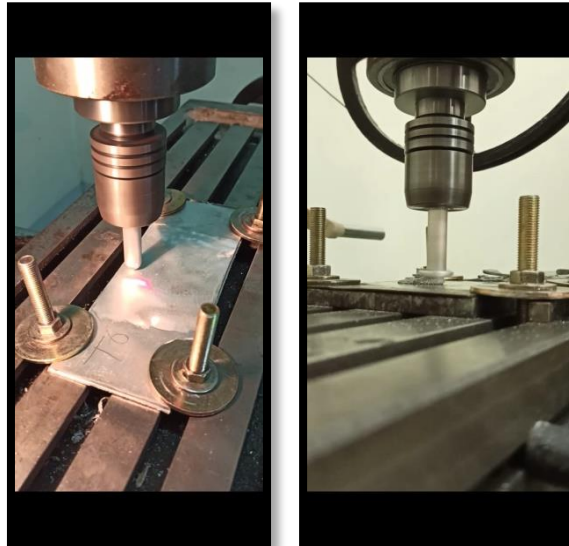
Name	Max_Force	Max_Disp.	Break_Force	Break_Disp.
Parameters	Calc. at Entire	Calc. at Entire	Sensitivity 10	Sensitivity 10
Unit	N	mm	N	mm
AI 7075 1	1054.71	11.9380	--	--
AI 7075 2	943.690	10.0501	--	--
AI 7075 3	1034.95	11.3518	--	--





LAMPIRAN II
FOTO KEGIATAN PENELITIAN

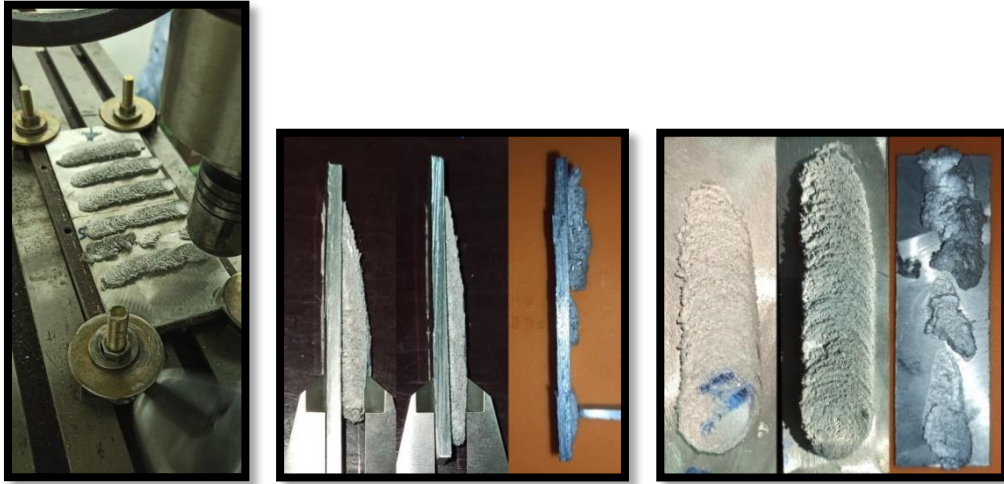
Proses *Friction Surfacing*



Proses pengukuran Temperatur *Friction surfacing*



Hasil proses *Friction Surfacing*



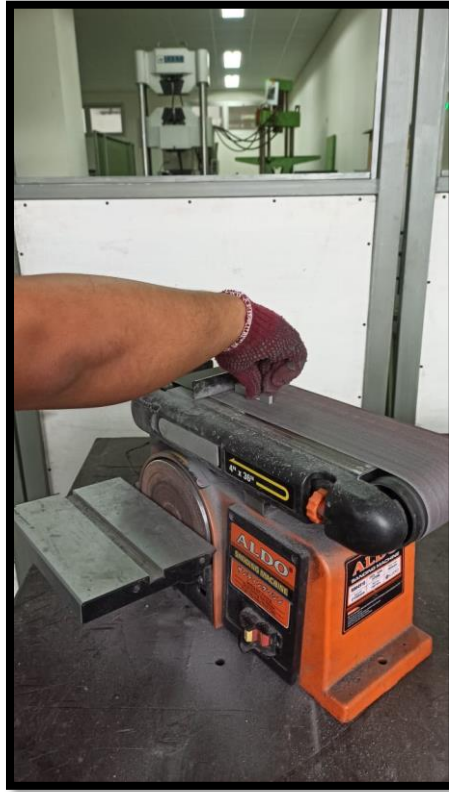
Proses pemotongan spesimen hasil friction surfacing

Menggunakan mesin potong

menggunakan gergaji besi



Proses menggosok spesimen



Bentuk spesimen setelah digosok



Alat uji bending



Proses Pengujian Bending



Ukuran spesimen setelah bending

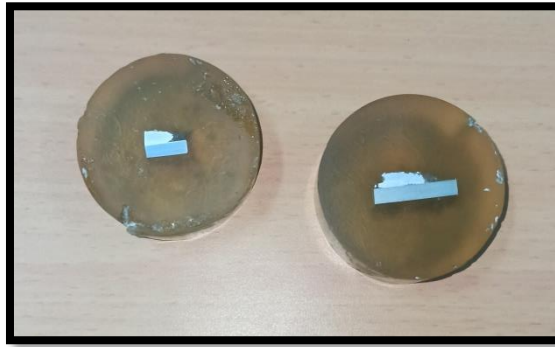


Proses pembuatan spesimen uji kekerasan dan pengamatan struktur mikro menggunakan resin

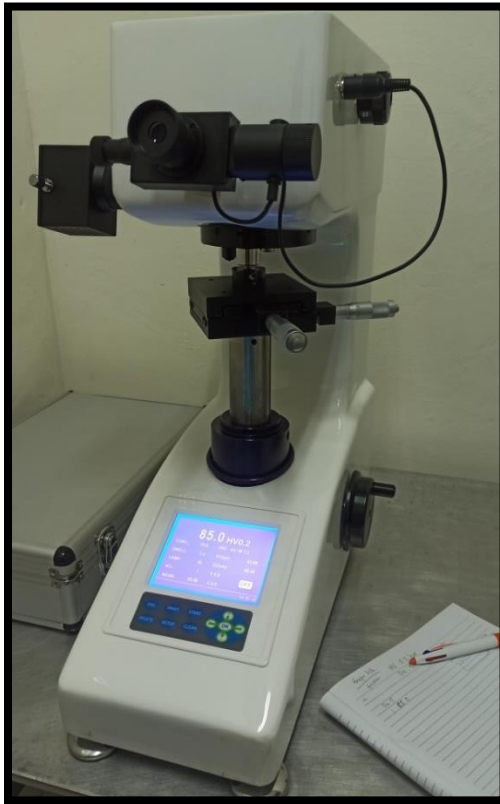


Proses penggosokan permukaan yang akan dilakukan pengamatan struktur mikro dan uji kekerasan

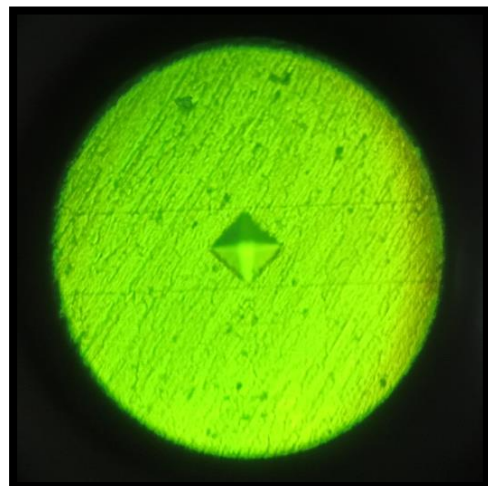
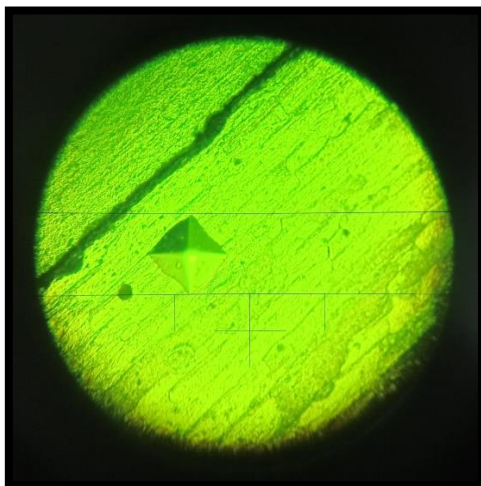
Spesimen yang telah digosok



Alat uji kekerasan vickers



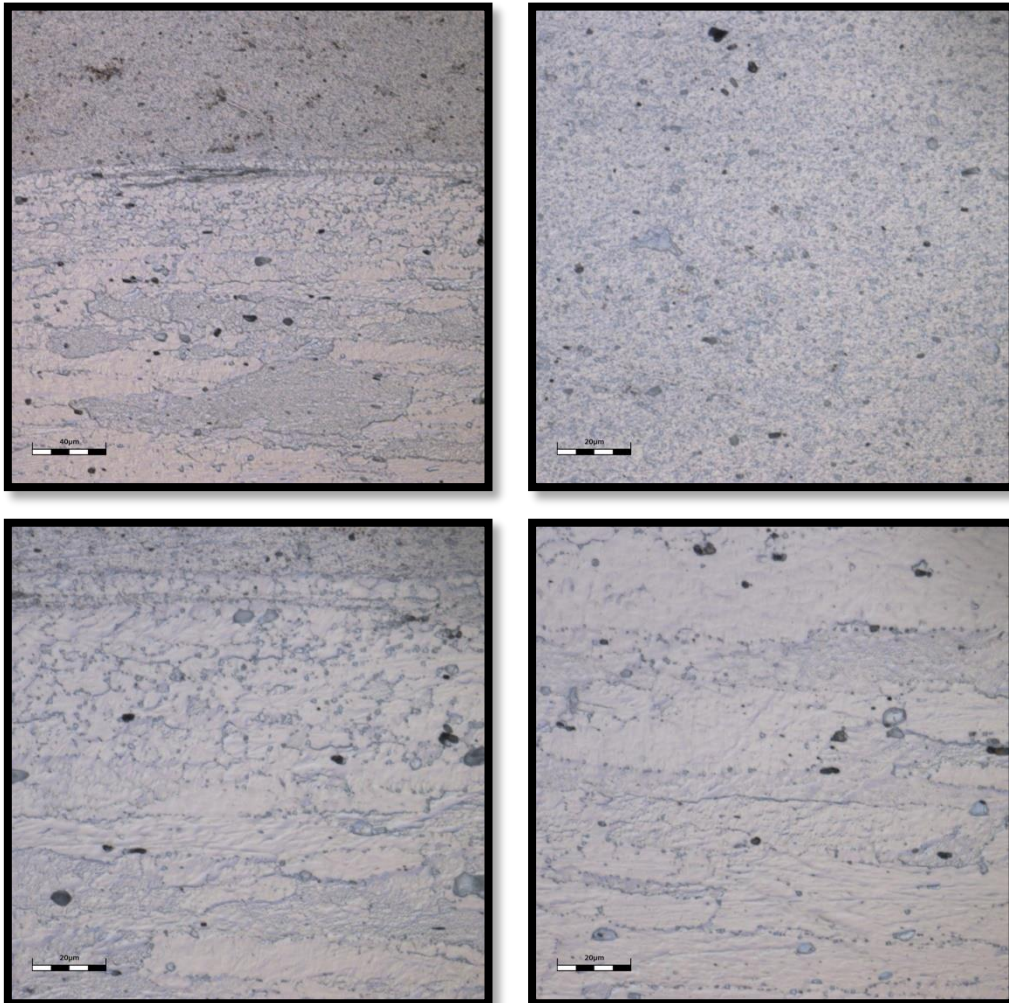
Hasil jejak pengukuran uji kekerasan vickers



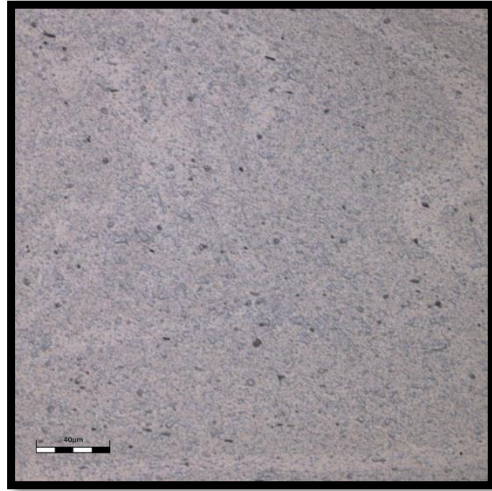
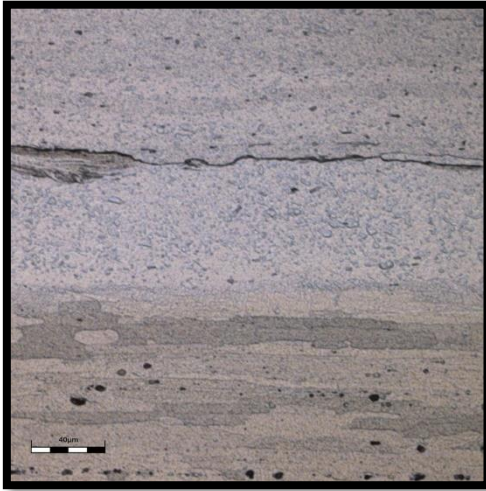
Alat uji Stuktur mikro



Hasil uji Stuktur mikro travel speed 6 cm/menit



Hasil uji Stuktur mikro travel speed 7 cm/menit



Hasil uji Stuktur mikro travel speed 8 cm/menit

