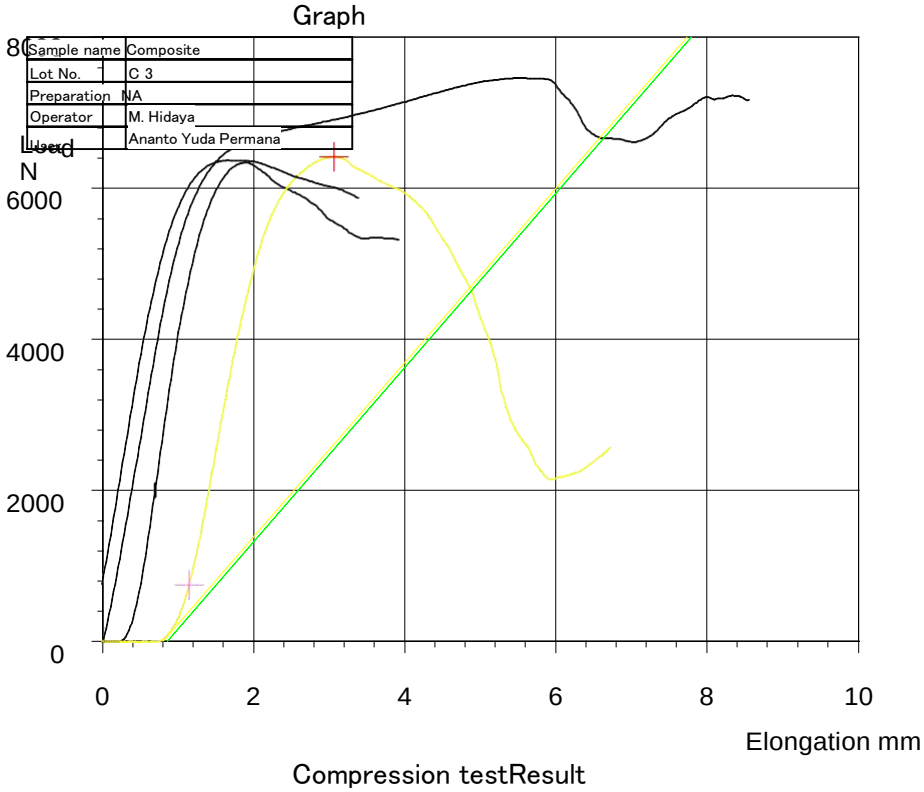


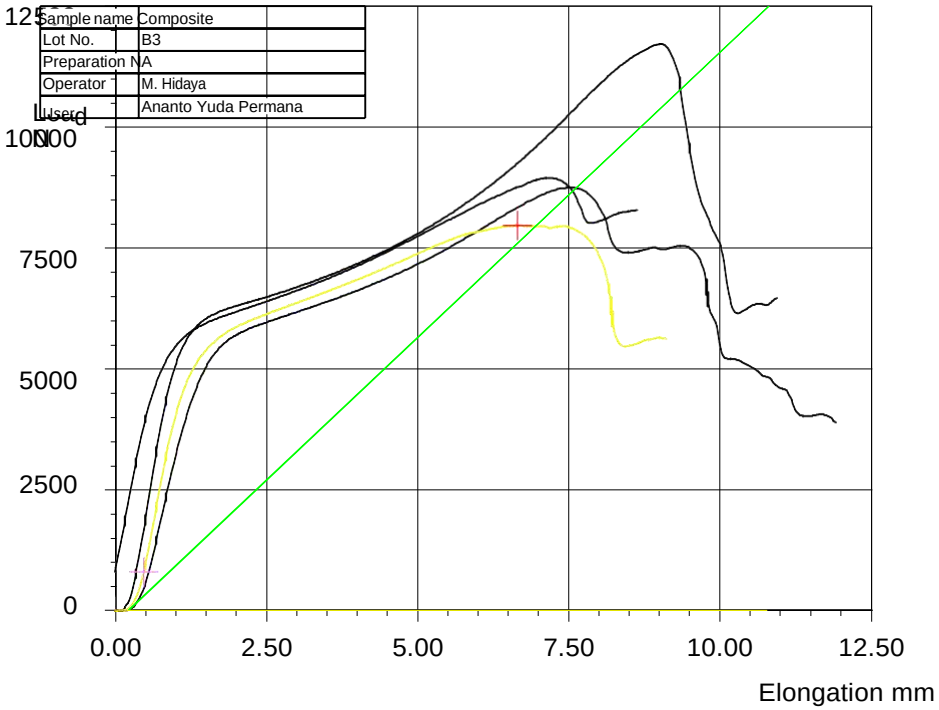
sample No.	Color
1	
2	
3	
Average SS	

Machine name	RTF			Test type	Tension Compression			
Strain input 1	Not used			Test speed	5.0 mm/min			
Chart speed OFF				Machine rigidity	0 mm/kgf			
Point data(Load)	0	0	0	Point data(Disp)	0	0	0	
N	0	0	0	mm	0	0	0	
Elastic modulus anal.	Interval	1	100	Initial sample length	Distance	10 mm		
Load	Pitch	5 N		Origin of elongation	Init. load	0.3 %RO		
Elong adjust	No			Break point measurem	0.5 N			
Save SS curve	Yes							

Test date	2022/08/09	Temperature	25 C
Humidity	60 %RH	Sample name	Composite
Lot No.	C 3	Preparation	NA
Operator	M. Hidaya	User	Ananto Yuda Permana
Comment 1	Skripsi	Comment 2	Untirta

TestID=63 Test No	Width mm	Depth mm	Sectional ar mm2	Maximum poin Load N	Maximum poin Stress MPa
2	12.700	25.400	322.58	6328.9	19.619
3	12.700	25.400	322.58	6401.2	19.843
Min.	12.700	25.400	322.58	6328.9	19.619
Max.	12.700	25.400	322.58	6401.2	19.843
Average	12.700	25.400	322.58	6365.05	19.731

Graph



sample No.	Color
1	
2	
3	
Average SS	

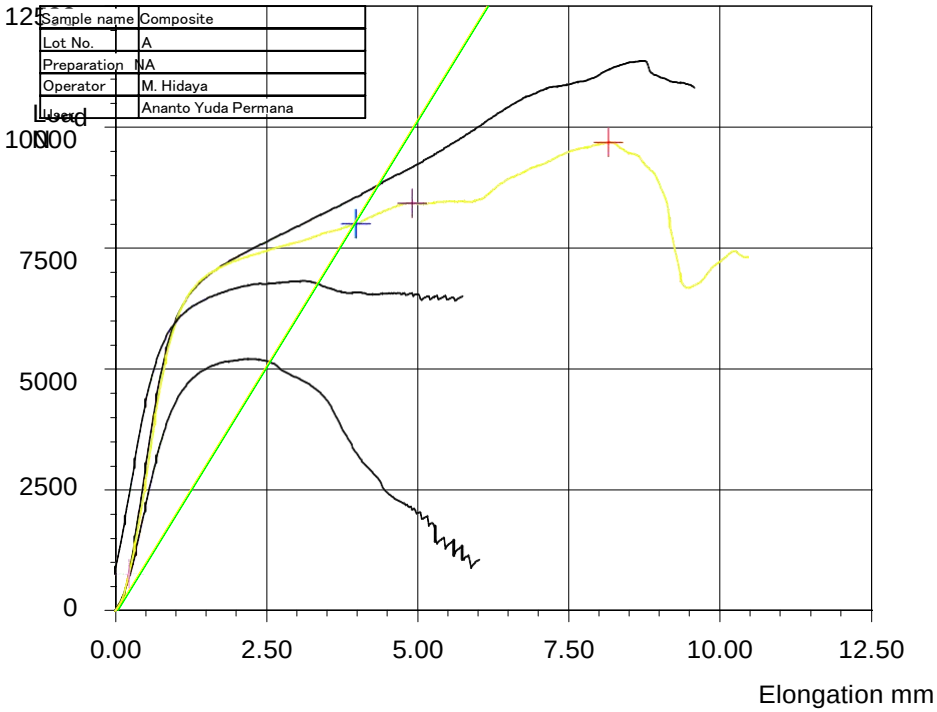
Compression testResult

Machine name	RTF			Test type	Tension Compression			
Strain input 1	Not used			Test speed	5.0 mm/min			
Chart speed OFF				Machine rigidity	0 mm/kgf			
Point data(Load)	0	0	0	Point data(Disp)	0	0	0	
N	0	0	0	mm	0	0	0	
Elastic modulus anal.	Interval	1	100	Initial sample length	Distance	10 mm		
Load	Pitch	5 N		Origin of elongation	Init. load	0.3 %RO		
Elong adjust	No			Break point measurem	0.5 N			
Save SS curve	Yes							

Test date	2022/08/09	Temperature	25 C
Humidity	60 %RH	Sample name	Composite
Lot No.	B3	Preparation	NA
Operator	M. Hidaya	User	Ananto Yuda Permana
Comment 1	Skripsi	Comment 2	Untirta

TestID=62 Test No	Width mm	Depth mm	Sectional ar mm2	Maximum poin Load N	Maximum poin Stress MPa
1	12.700	25.400	322.58	8732.8	27.071
2	12.700	25.400	322.58	7950.9	24.647
Min.	12.700	25.400	322.58	7950.9	24.647
Max.	12.700	25.400	322.58	8732.8	27.071
Average	12.700	25.400	322.58	8341.8	25.859

Graph



sample No.	Color
1	
2	
3	
Average SS	

Compression testResult

Machine name	RTF			Test type	Tension Compression			
Strain input 1	Not used			Test speed	5.0 mm/min			
Chart speed OFF				Machine rigidity	0 mm/kgf			
Point data(Load)	0	0	0	Point data(Disp)	0	0	0	
N	0	0	0	mm	0	0	0	
Elastic modulus anal.	Interval	1	100	Initial sample length	Distance	10 mm		
Load	Pitch	5 N		Origin of elongation	Init. load	0.3 %RO		
Elong adjust	No			Break point measurem	0.5 N			
Save SS curve	Yes							

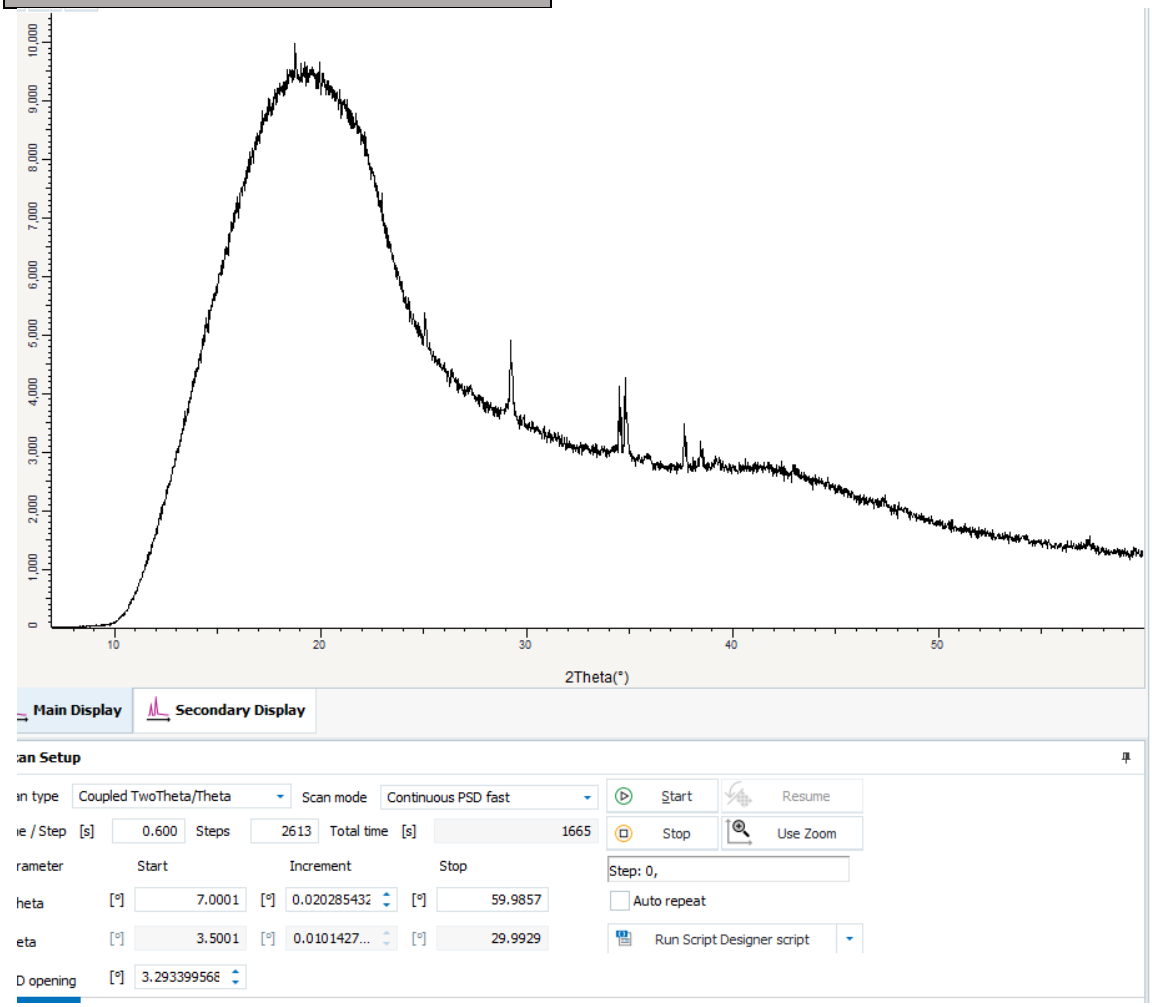
Test date	2022/08/09	Temperature	25 C
Humidity	60 %RH	Sample name	Composite
Lot No.	A	Preparation	NA
Operator	M. Hidaya	User	Ananto Yuda Permana
Comment 1	Skripsi	Comment 2	Untirta

TestID=61 Test No	Width mm	Depth mm	Sectional ar mm2	Maximum poin Load N	Maximum poin Stress MPa
1	12.700	25.400	322.58	11354.	35,197
2	12.700	25.400	322.58	9667.7	29,969
Min.	12.700	25.400	322.58	9667,7	29,969
Max.	12.700	25.400	322.58	11354.	35,197
Average	12.700	25.400	322.58	10510,8	32,583

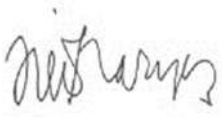
Test Report

Name of Project	XRD 19 – Komposit 1/A (60%:40%:0%)
User Name	Alfian
Name of the Test	XRD
Test Date	07 September 2022

Test Runs Chart



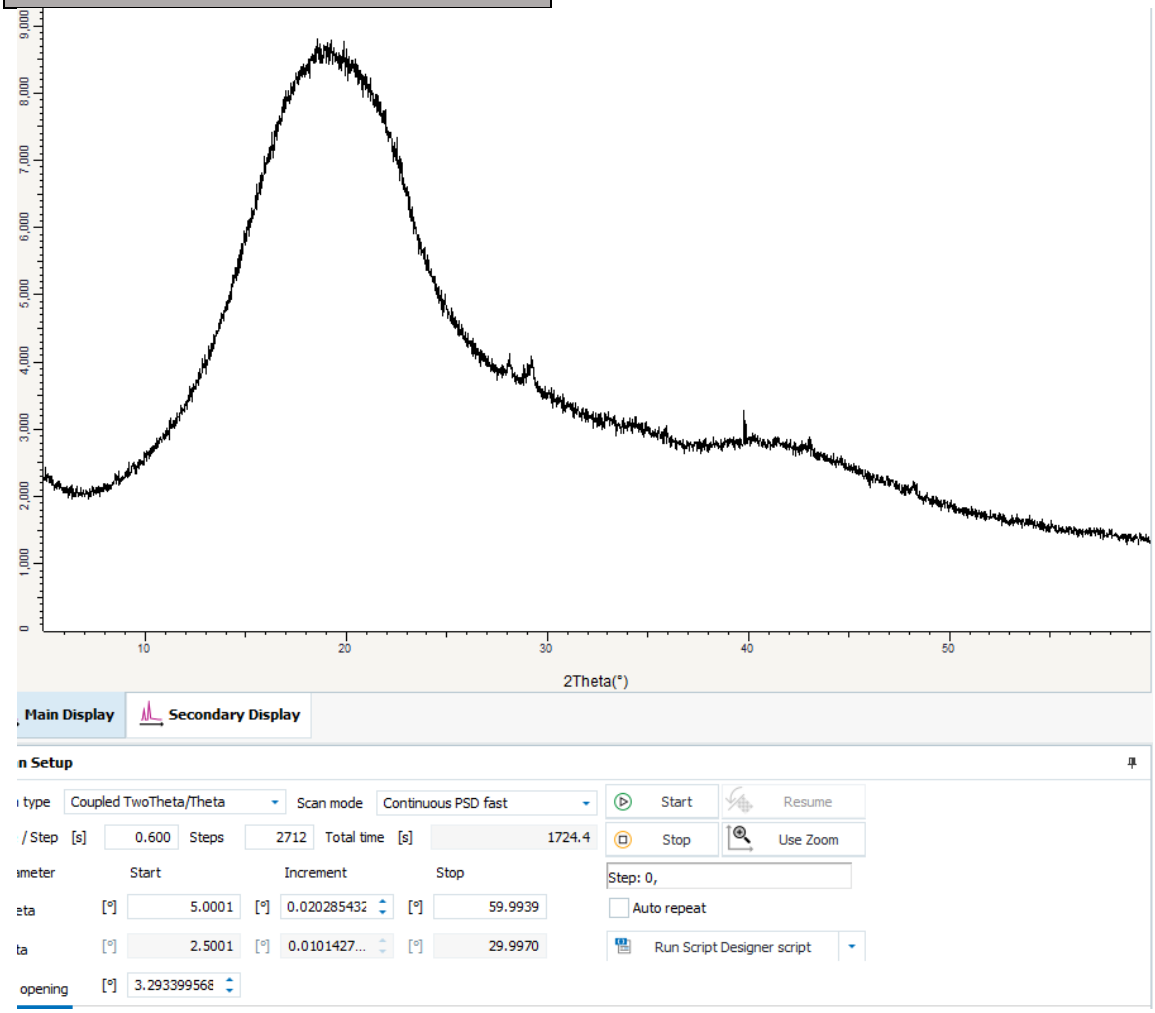
Validation

Chair of Integrated Laboratory	Head of Nanoparticles Laboratory
	
Dr. Didied Haryono, ST., MT.	Dr. Lusiani Dewi Assaat, S.Pd., M.Si.
NIP. 196810062001121002	NIP. 198010102005012003

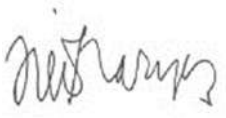
Test Report

Name of Project	XRD 20 – Komposit 2/B (60%:30%:10%)
User Name	Alfian
Name of the Test	XRD
Test Date	07 September 2022

Test Runs Chart



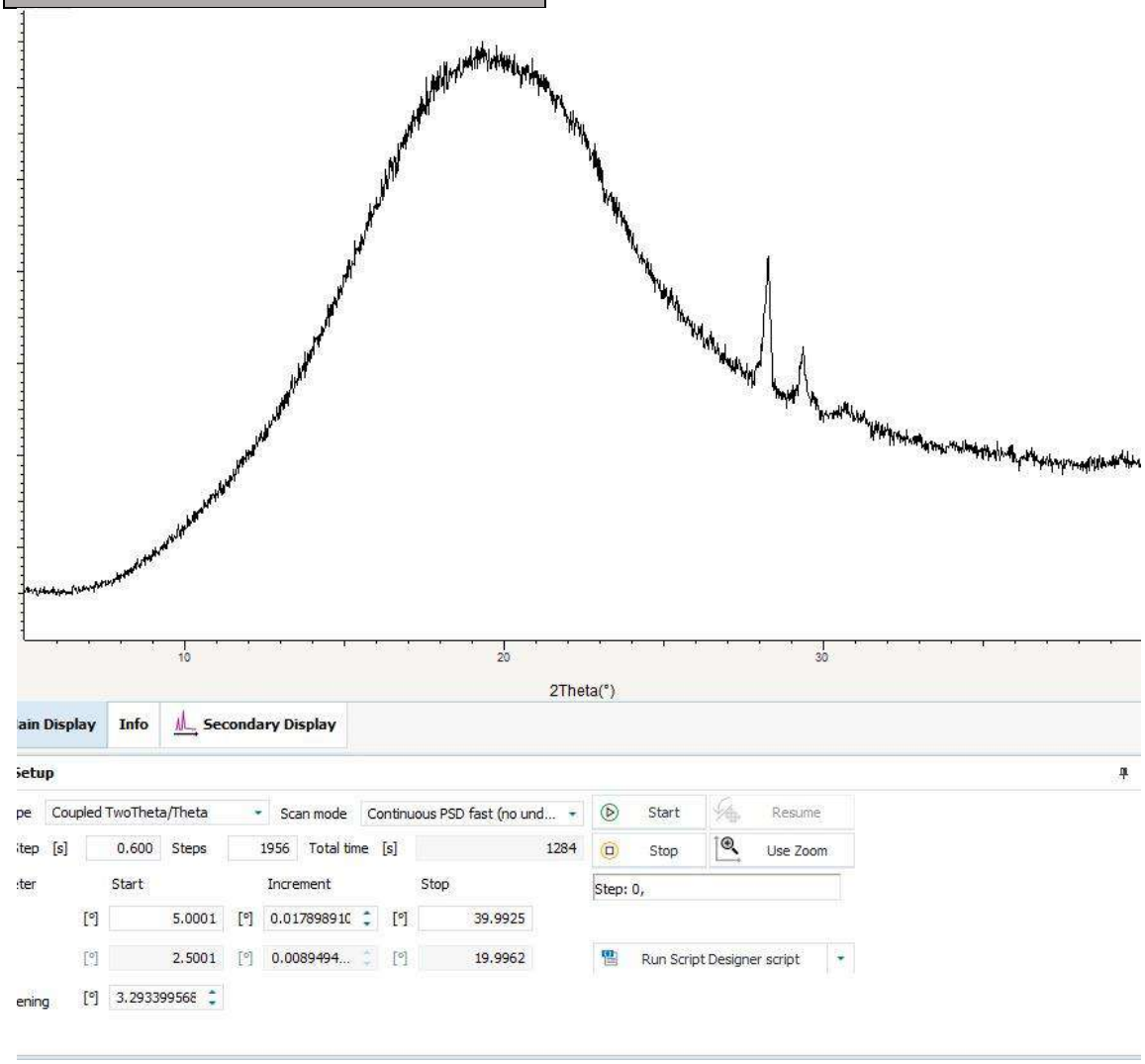
Validation

Chair of Integrated Laboratory	Head of Nanoparticles Laboratory
	
Dr. Didied Haryono, ST., MT.	Dr. Lusiani Dewi Assaat, S.Pd., M.Si.
NIP. 196810062001121002	NIP. 198010102005012003

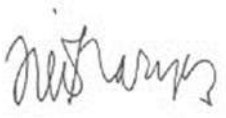
Test Report

Name of Project	XRD 21 – Komposit 3/C (60%:20%:20%)
User Name	Alfian
Name of the Test	XRD
Test Date	12 September 2022

Test Runs Chart



Validation

Chair of Integrated Laboratory	Head of Nanoparticles Laboratory
	
Dr. Didied Haryono, ST., MT.	Dr. Lusiani Dewi Assaat, S.Pd., M.Si.
NIP. 196810062001121002	NIP. 198010102005012003

CV. MIQQA GLOBAL INDONESIA

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Date	: 02 agustus 2022
Report No.	: 001HD/VIII/2022
Ref. Standard	:
Operator	: Nursaleh

HARDNESS TEST REPORT

Client	:	Ananto Yuda Permana (Untirta)							
Project Name	:	Skripsi							
Material	:	Komposit			Part No.	:	A		
Surface Preparation	:	☐	Grinding	☑	Machining	☐	Lapping	☐	Filling
		☐	Other _____						
Test Location	:	☑	Base Metal	☐	HAZ	☐	Weld Metal		
Measuring Unit	:	☑	Durometer type D						
Test Witness	:	☐	Yes	☑	No				

HARDNESS						
Location	**Test 1**	**Test 2**	**Test 3**	**Test 4**	**Test 5**	**Test 6**
Base Material	82 HD	78.5 HD	81.5 HD	79 HD	79 HD	79.5 HD

Approved Signatory

MIQQA

M. Hidayat

Head of Laboratory

CV. MIQQA GLOBAL INDONESIA

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Date	: 02 agustus 2022
Report No.	: 002HD/VIII/2022
Ref. Standard	:
Operator	: Nursaleh

HARDNESS TEST REPORT

Client	:	Ananto Yuda Permana (Untirta)								
Project Name	:	Skripsi								
Material	:	Komposit				Part No.	:	B		
Surface Preparation	:	☐	Grinding	☑	Machining	☐	Lapping	☐	Filling	
		☐	Other _____							
Test Location	:	☑	Base Metal	☐	HAZ	☐	Weld Metal			
Measuring Unit	:	☑	Durometer type D							
Test Witness	:	☐	Yes	☑	No					

HARDNESS						
Location	**Test 1**	**Test 2**	**Test 3**	**Test 4**	**Test 5**	**Test 6**
Base Material	80.5 HD	80 HD	82 HD	80.5 HD	81 HD	82 HD

Approved Signatory

M. Hidayat

Head of Laboratory

CV. MIQQA GLOBAL INDONESIA

keep on innovation

Date	: 02 agustus 2022
Report No.	: 003HD/VIII/2022
Ref. Standard	:
Operator	: Nursaleh

HARDNESS TEST REPORT

Client	:	Ananto Yuda Permana (Untirta)									
Project Name	:	Skripsi									
Material	:	Komposit				Part No.	:	C			
Surface Preparation	:	☐	Grinding	☑	Machined	☐	Lapping	☐	Filling		
		☐	Other _____								
Test Location	:	☑	Base Metal	☐	HAZ	☐	Weld Metal				
Measuring Unit	:	☑	Durometer type D								
Test Witness	:	☐	Yes	☑	No						

HARDNESS						
Location	**Test 1**	**Test 2**	**Test 3**	**Test 4**	**Test 5**	**Test 6**
Base Material	83.5 HD	82.5 HD	82 HD	82 HD	82.5 HD	81.5 HD

Approved Signatory

M. Hidayat

Head of Laboratory