

## LAMPIRAN



Proses pemotongan spesimen uji 15 cm x 15 cm tebal 4 mm (*sumber : foto sendiri*)



Spesimen uji plat stainless stell 37 sebelum penyemprotan sandblasting (*sumber: foto pribadi*)



Plat yang sudah dilakukan penyemprotan proses sandblasting (*sumber: foto sendiri*)



Persiapan melakukan penyemprotan ke specimen ( *sumber : foto sen*



Penggosokan film thickness (*sumber: foto sendiri*)



Pengujian kekasaran menggunakan alat elcometer 122 testex® tape (*sumber : foto sendiri*)

**SURAT KETERANGAN**  
Nomor: 083/SKet/Ext-SLP/IX/22

Yang bertanda tangan di bawah ini :

Nama : M. Taufik  
Jabatan : Koordinator Supervisor

Menerangkan bahwa:

Nama : Nurul Huda  
NBI : 1421900016  
Jabatan : Mahasiswa Program Studi Teknik Mesin  
Universitas Tujuh Belas Agustus 1945 (Untag)  
Surabaya

Telah melaksanakan pengujian kekasaran di Workshop Nilam pada tanggal 5 Oktober 2022 untuk keperluan penyusunan skripsi.

Demikian surat keterangan ini kami buat untuk digunakan sebagaimana mestinya.

Surabaya, 6 Oktober 2022  
PT Safinah Laras Persada

  
**M. Taufik**  
Koordinator Supervisor



Surat keterangan pengujian kekasaran (sumber: foto sendiri)

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Surabaya

Telah melaksanakan pengujian sandblasting di Workshop Nilam pada tanggal 5 Oktober 2022 untuk keperluan penyusunan skripsi.



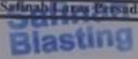
Demikian surat keterangan ini kami buat untuk digunakan sebagaimana mestinya.

Surabaya, 6 Oktober 2022  
PT Safinah Laras Persada

  
SAFINAH LARAS PERSADA  
**M. Taufik**  
Koordinator Supervisor



Surat keterangan pengujian sandblasting ( sumber: foto sendiri)

| <br>Sandblasting Report Form -<br>Blasting & Profile Report  |                             |   |
|---|-----------------------------|---|
| Nama  | Nurul Huda                  | Company Rep   |
| Project   | : Blasting                  | Coating System  |
| Material  | : Plat 150 x 150 x 4 27 Qty | Date  |
| Description   | : Blasting And Roughness    | Location  |
|   |                             | : WS Nilam  |
| Profile Roughness   |                             | Calibration Record                                    |
| Manufacturer / Diameter   | Part No : G.124...3M        | Calibration Standard:                                 |
| Type :-   | Serial Number : AK0027      | <input checked="" type="checkbox"/> Calibration Shims |
| WSE Number  | Condition : OK              | <input type="checkbox"/> NIST Tiles                   |
|   |                             | Calibrated  |
|   |                             | OK  |
| Plat St 37  |                             |   |
| Plat 150 x 150 x 4 3 Qty  | Time                        | Average   |
| Test Spot 1   | 4 Bar 8 Second              | 59 µm   |
| Test Spot 2   | 4 Bar 8 Second              | 64 µm   |
| Test Spot 3   | 4 Bar 8 Second              | 58 µm   |
| Total Average DFT   |                             | 60,33 µm  |
| Plat St 37  |                             |   |
| Plat 150 x 150 x 4 3 Qty  | Time                        | Average   |
| Test Spot 1   | 4 Bar 12 Second             | 64 µm   |
| Test Spot 2   | 4 Bar 12 Second             | 56 µm   |
| Test Spot 3   | 4 Bar 12 Second             | 66 µm   |
| Total Average DFT   |                             | 62 µm   |
| Plat St 37  |                             |   |
| Plat 150 x 150 x 4 3 Qty  | Time                        | Average   |
| Test Spot 1   | 4 Bar 16 Second             | 61 µm   |
| Test Spot 2   | 4 Bar 16 Second             | 72 µm   |
| Test Spot 3   | 4 Bar 16 Second             | 64 µm   |
| Total Average DFT   |                             | 65,67 µm  |
| Plat St 37  |                             |   |
| Plat 150 x 150 x 4 3 Qty  | Time                        | Average   |
| Test Spot 1   | 5 Bar 8 Second              | 62 µm   |
| Test Spot 2   | 5 Bar 8 Second              | 74 µm   |
| Test Spot 3   | 5 Bar 8 Second              | 70 µm   |
| Total Average DFT   |                             | 58,67 µm  |
| Plat St 37  |                             |   |
| Plat 150 x 150 x 4 3 Qty  | Time                        | Average   |
| Test Spot 1   | 5 Bar 12 Second             | 76 µm   |
| Test Spot 2   | 5 Bar 12 Second             | 71 µm   |
| Test Spot 3   | 5 Bar 12 Second             | 63 µm   |
| Total Average DFT   |                             | 70 µm   |
| Prepared by   |                             |   |
| <br>Alfin Ari Fahman<br>PT. SAFINAH LAYANAN BERSAMA<br> |                             |   |
| Checked & Approved by,  |                             |   |

Hasil dari pengujian kekasaran (sumber: foto pribadi)





**SeAH Besteel Corp.**  
 1-6, SOHYONG-DONG, KUNGSAN,  
 CHEONGJU, KOREA(573-711)

### MILL CERTIFICATE

TEL : +82-(0)63-460-8572, 8318(0A)  
 +82-(0)63-460-8114(Repres.)  
 FAX : +82-(0)63-460-8423 Page(0/0)

Date : 2018-03-11  
 Cert. No. : 201803-019834  
 Customer :  
 Heat No. : 300046

Steel Grade : AISI 1037/ST37  
 Shape of Product : PLATE BAR  
 Delivery Condition : FOUR SQUARE PLATE

Size (mm) : 5 X 1200  
 Length (mm) : 2400  
 Weight (kg) : 115  
 Quantity(pcs) : 1,000

| Inspection Items | Chemical Composition (wt. %) |            |           |        |        |
|------------------|------------------------------|------------|-----------|--------|--------|
|                  | C                            | SI         | MN        | P      | S      |
|                  | x 100                        | x 100      | x 100     | x 1000 | x 1000 |
| Spec.            | Min.                         | 32         | 17        | 0.7    | 40     |
|                  | Max.                         | 40         | 37        | 1      | 35     |
|                  | Result                       | 37         | 37        | 0.8    | MAX    |
| Inspection Items | Product Hardness (H-B)       |            |           |        |        |
|                  | SURFACE                      | 100-120 HB | 10-30 HRC |        |        |

#### Mechanical Properties AISI 1037/ST37

| Mechanical Properties       | Symbol | Steel     |
|-----------------------------|--------|-----------|
| Young's modulus (GPa)       | E      | 190       |
| Poisson's ratio             | v      | 0.29      |
| Density(Kg/m <sup>3</sup> ) | P      | 7,740     |
| Yield strength (MPa)        | Sy     | 540       |
| Shear strength (MPa)        | Ss     | 340       |
| Extension ratio (%)         |        | 14 - 20   |
| Area reduction (Pa)         |        | 40 - 45   |
| Hardness (Hb)               | Hb     | 100 - 120 |

<<Remark>>

B/D5 : 4

----- End of report -----

We hereby certify that the material described herein has been made in accordance with the rules of the contract. **RIZOI BAROKAH STEEL** Certified by *O. Y. Cho*  
 Manager of Quality Assurance Dept

Sertifikat plat stainless stell 37 ( sumber: foto sendiri )