


## LAMPIRAN-LAMPIRAN

## Lampiran A Uji Komposisi

Itokoh

**PT. ITOKOH CEPERINDO**  
 Stainless Steel & Alloy Steel Casting



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COMPANY : PT. ITOKOH CEPERINDO  
 SAMPLE NAME : PLAT STAINLESS  
 CUSTOMER : SDR. ILHAMMUDIN  
 FURNACE : WC0573F01/68  
 OPERATOR : WENDY  
 DATE / TIME : 05-MAR-2018 09:52:00  
 TASK : Conc\_Fei METHOD : FEGLFE


	Fe%	S	Al	C	Ni	Nb	Si	Cr	V
1	71.2837	0.0059	0.0116	0.0534	8.2596	0.0122	0.2949	18.5085	0.041
2	71.3852	0.0057	0.0136	0.0542	8.2047	0.0127	0.2972	18.4509	0.041
<b>AVG</b>	<b>71.3344</b>	<b>0.0058</b>	<b>0.0126</b>	<b>0.0538</b>	<b>8.2321</b>	<b>0.0125</b>	<b>0.2961</b>	<b>18.4797</b>	<b>0.041</b>
<i>SD</i>	<i>0.07180</i>	<i>0.00009</i>	<i>0.00141</i>	<i>0.00055</i>	<i>0.03886</i>	<i>0.00035</i>	<i>0.00164</i>	<i>0.04070</i>	<i>0.006</i>
<i>SD%</i>	<i>0.10</i>	<i>1.54</i>	<i>11.22</i>	<i>1.02</i>	<i>0.47</i>	<i>2.83</i>	<i>0.55</i>	<i>0.22</i>	<i>0.85</i>

	Mn	Mo	W	P	Cu	Ti	N	B	Pb
1	0.9394	0.0758	-0.0001	0.0403	0.1582	0.0010	0.0379	0.0007	0.004
2	0.9415	0.0752	-0.0000	0.0399	0.1563	0.0011	0.0414	0.0008	0.004
<b>AVG</b>	<b>0.9405</b>	<b>0.0755</b>	<b>-0.0000</b>	<b>0.0401</b>	<b>0.1572</b>	<b>0.0010</b>	<b>0.0397</b>	<b>0.0007</b>	<b>0.004</b>
<i>SD</i>	<i>0.00153</i>	<i>0.00042</i>	<i>0.00004</i>	<i>0.00028</i>	<i>0.00135</i>	<i>0.00003</i>	<i>0.00248</i>	<i>0.00001</i>	<i>0.006</i>
<i>SD%</i>	<i>0.16</i>	<i>0.56</i>	<i>89.64</i>	<i>0.71</i>	<i>0.86</i>	<i>0.16</i>	<i>6.25</i>	<i>1.76</i>	<i>10.43</i>

	Sb	Ca	Mg	Zn	Co
1	0.0107	0.0007	0.0091	-0.0084	0.2327
2	0.0109	0.0007	0.0090	-0.0083	0.2327
<b>AVG</b>	<b>0.0108</b>	<b>0.0007</b>	<b>0.0090</b>	<b>-0.0084</b>	<b>0.2327</b>
<i>SD</i>	<i>0.00012</i>	<i>0.00001</i>	<i>0.00006</i>	<i>0.00006</i>	<i>0.00000</i>
<i>SD%</i>	<i>1.09</i>	<i>0.98</i>	<i>0.65</i>	<i>0.71</i>	<i>0.00</i>

**Q.C. PASSED**  
 By:  Date: 8-3-2018

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**INDONESIA OFFICE & FACTORY** : Jl. KH. Hasyim As'ari By Pass Selatan Klaten 57417, Jateng - Indonesia  
 Phone : (0272) 324208, 324038, Fax. (324213), E-mail : itokohci@indosat.net.id  
**JAPAN OFFICE** : 3-22-2 Motogo, Kawaguchi City, Saitama, Japan  
 Phone : 81 482 248 401, Fax : 81 482 242070

Gambar A.1. Hasil Uji Komposisi Material



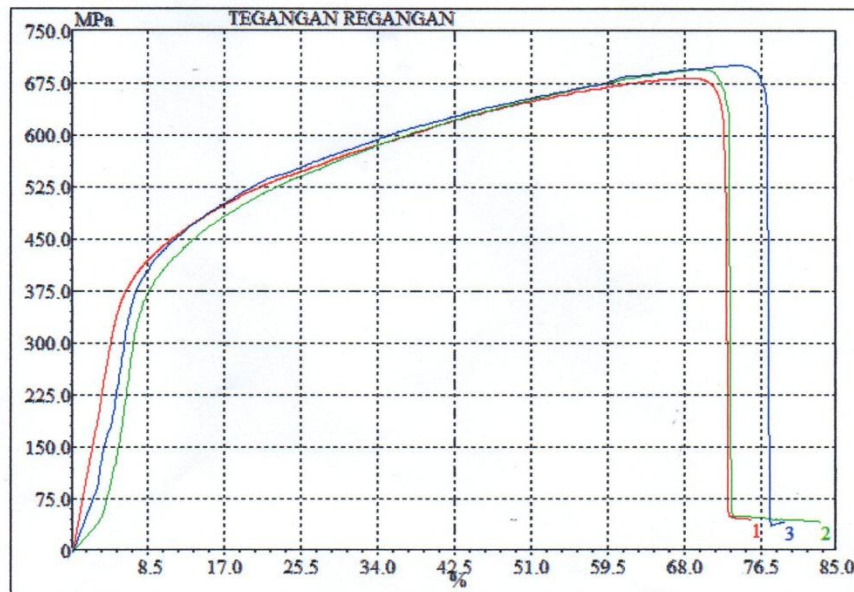


Nama : Ilham  
Instansi : unwahas

Bahan : SS 304 70 A  
Standard : E8M-09

### HASIL PENGUJIAN TARIK

No	Material	Area mm <sup>2</sup>	Yield Point N	Yield Stress MPa	Max. Load N	Max. Stress MPa	Break N	Break MPa	Extension mm	Elongation %
1 ✓	SS 304	7.200	4435.485	616.040	4922.619	683.697	321.546	44.659	24.125	75.391
2	SS 304	7.200	4516.514	627.294	5012.941	696.242	301.487	41.873	26.575	83.047
3	SS 304	7.200	3974.196	551.972	5052.201	701.695	295.233	41.005	25.313	79.102



Semarang, 30-05-2018  
Kepala Laboratorium

Helmy Purwanto, ST., MT  
NPP. 05.01.1.0060

Tested By : Nur Kholis, ST  
NPP. 02.14.0.0303

Godang D. Fakultas Teknik  
Jl. Memoreh Tengah X/22 Sampangan Semarang 50236  
Telp. +62 24 8505680 (exc. 160), Fax. +62 24 8505681, www.teknik.unwahas.ac.id

Gambar B.2. Hasil Uji Tarik Arus Pengelasan 70 A



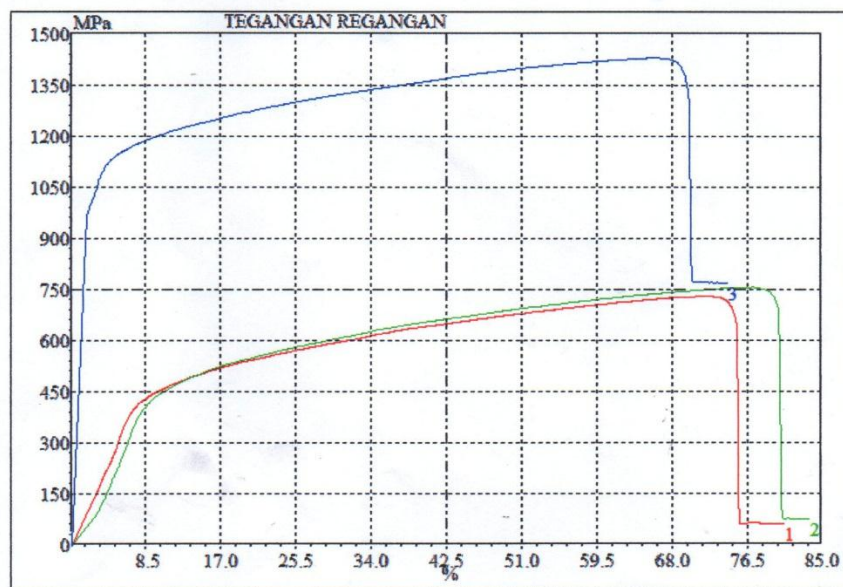
Laboratorium  
**Material Teknik**  
JURUSAN TEKNIK MESIN FAKULTAS TEKNIK  
UNIVERSITAS WAHID HASYIM

Nama : Ilham  
Instansi : unawahas

Bahan : SS 304 80 A  
Standard : E8M-09

### HASIL PENGUJIAN TARIK

No	Material	Area mm <sup>2</sup>	Yield Point	Yield Stress	Max. Load	Max. Stress	Break	Break	Extension mm	Elongation %
			N	MPa	N	MPa	N	MPa		
1 ✓	SS 304	7.200	4716.982	655.136	5263.825	731.087	436.095	60.569	25.800	80.625
2	SS 304	7.200	4910.894	682.069	5452.100	757.236	536.017	74.447	26.738	83.555
3	SS 304	7.200	9273.290	1287.957	10301.638	1430.783	5534.180	768.636	23.750	74.219



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Gambar B.3. Hasil Uji Tarik Arus Pengelasan 80 A



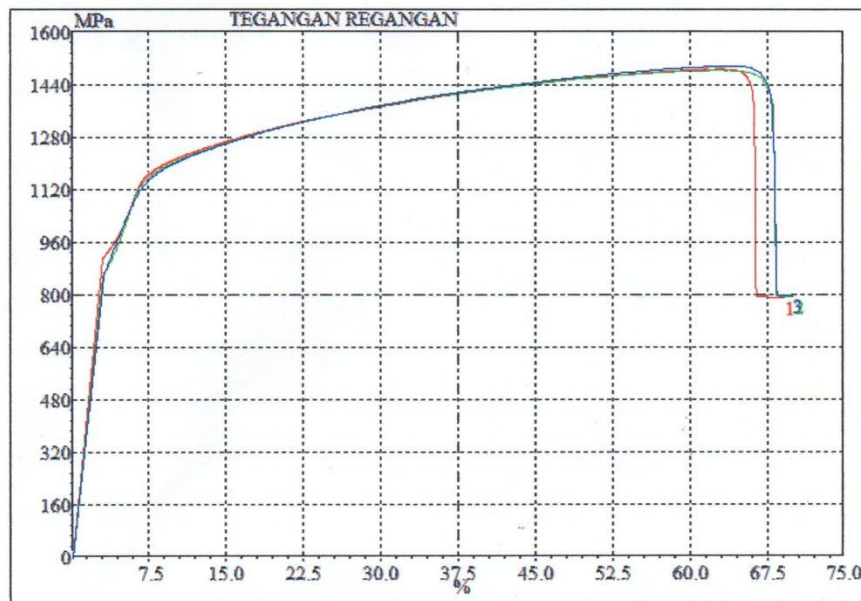
Laboratorium  
**Material Teknik**  
JURUSAN TEKNIK MESIN FAKULTAS TEKNIK  
UNIVERSITAS WAHID HASYIM

Nama : Ilham  
Instansi : uawahas

Bahan : SS 304 Raw  
Standard : E8M-09

#### HASIL PENGUJIAN TARIK

No	Material	Area mm <sup>2</sup>	Yield Point N	Yield Stress MPa	Max. Load N	Max. Stress MPa	Break N	Break MPa	Extension mm	Elongation %
1	SS 304	7.200	9650.325	1340.323	10720.996	1489.027	5688.284	790.039	22.150	69.219
2 ✓	SS 304	7.200	9630.486	1337.568	10695.706	1485.515	5721.477	794.650	22.413	70.039
3	SS 304	7.200	9716.273	1349.482	10791.118	1498.766	5740.912	797.349	22.388	69.961



Semarang, 30-05-2018  
Kepala Laboratorium

Helmy Purwanto, ST., MT  
NPP. 05.01.1.0060

Tested By: Nur Kholis, ST  
NPP. 02.14.0.0303

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Gambar B.4. Hasil Uji Tarik Arus Pengelasan Raw Material