

## JP ok

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- Gravity **11.9 BLG**
- ABV ---
- IBU **39**
- SRM **6.7**
- Style **Special/Best/Premium Bitter**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

### Mash information

- Mash efficiency **62 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

### Steps

- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **73C**
- Keep mash **10 min** at **78C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	pilsnenski bohemski klepiskowy	5.7 kg (81.4%)	75 %	3.5
Grain	munich	1.3 kg (18.6%)	75 %	20

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	35 g	60 min	10.5 %
Boil	Lublin (Lubelski)	30 g	5 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	---

### Notes

- Glukoza 190g refermentacja  
*Apr 22, 2016, 2:07 PM*