

## "waicen" ulka

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **9**
- SRM **4.2**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **34.5 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

### Steps

- Temp **46 C**, Time **10 min**
- Temp **51 C**, Time **15 min**
- Temp **54 C**, Time **10 min**
- Temp **63 C**, Time **20 min**
- Temp **68 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **18.3 liter(s)** of strike water to **50.3C**
- Add grains
- Keep mash **10 min** at **46C**
- Keep mash **15 min** at **51C**
- Keep mash **10 min** at **54C**
- Keep mash **20 min** at **63C**
- Keep mash **15 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **22.3 liter(s)** of **76C** water or to achieve **34.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	3 kg (49.1%)	81 %	5
Grain	Strzegom Pszeniczny	3 kg (49.1%)	81 %	6
Grain	Monachijski	0.11 kg (1.8%)	80 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau	25 g	90 min	3.9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM41 Gwoździe i Banany	Wheat	Liquid	150 ml	Fermentum Mobile

### Extras

<b>Type</b>	<b>Name</b>	<b>Amount</b>	<b>Use for</b>	<b>Time</b>
Other	marakuja	1500 g	Secondary	14 day(s)
Other	mango	500 g	Secondary	14 day(s)