

## Brak nazwy

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- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **72**
- SRM **36.2**

### Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.2 liter(s)**
- Total mash volume **14.9 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**

### Mash step by step

- Heat up **11.2 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **7 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	1.5 kg (40.3%)	81 %	5
Grain	Weyermann - Carafa II	0.11 kg (3%)	70 %	837
Grain	Weyermann - Pale Ale Malt	1.5 kg (40.3%)	85 %	7
Grain	Weyermann - Carafa III	0.11 kg (3%)	70 %	1024
Grain	black bezmaltz	0.1 kg (2.7%)	55 %	1200
Grain	Słód Kawowy 500 EBC	0.2 kg (5.4%)	75.5 %	420
Grain	Amber Malt	0.2 kg (5.4%)	75 %	43

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Apollo	20 g	60 min	17 %
Boil	Mosaic	5 g	60 min	11.8 %
Boil	Mosaic	5 g	10 min	11.8 %
Boil	Mosaic	5 g	5 min	11.8 %
Dry Hop	Mosaic	35 g	7 day(s)	11.8 %

### Yeasts

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
Mangrove Jack's libery balle ale	Ale	Slant	200 ml	Dom