

## Co się nawinie

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- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **59**
- SRM **3.2**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **14.4 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **5.8 liter(s)**
- Total mash volume **7.7 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **9 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **5.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **9 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **10.5 liter(s)** of **76C** water or to achieve **14.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.629 kg (84.4%)	80 %	5
Grain	Płatki owsiane	0.3 kg (15.6%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	5 g	50 min	13.7 %
Boil	Citra	5 g	30 min	13.7 %
Boil	Citra	5 g	10 min	13.7 %
Aroma (end of boil)	Citra	10 g	5 min	13.7 %
Whirlpool	Citra	20 g	20 min	13.7 %
Dry Hop	Citra	30 g	2 day(s)	13.7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	10 g	Mangrove Jack's