

## APA

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **37**
- SRM **4**
- 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 **10 %/h**
- Boil size **13.2 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.7 liter(s)**
- Total mash volume **11.6 liter(s)**

### Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **8.7 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **7.4 liter(s)** of **76C** water or to achieve **13.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2 kg (69%)	82 %	4
Grain	Viking Wheat Malt	0.5 kg (17.2%)	83 %	5
Grain	Platki owsiane	0.4 kg (13.8%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	10 g	60 min	12.1 %
Boil	El Dorado	10 g	10 min	13.2 %
Aroma (end of boil)	Cascade	10 g	5 min	6.9 %
Dry Hop	El Dorado	10 g	3 day(s)	13.2 %
Dry Hop	Cascade	30 g	3 day(s)	6.9 %

### Yeasts

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

### Extras

Type	Name	Amount	Use for	Time
Other	Łuska ryżowa	100 g	Mash	---