

## R

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **43**
- SRM **3.7**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **41.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **43.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **53.3 liter(s)**

### Mash information

- Mash efficiency **88 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.5 liter(s)**
- Total mash volume **34 liter(s)**

### Steps

- Temp **55 C**, Time **10 min**
- Temp **65 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **25.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **50 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **36.3 liter(s)** of **76C** water or to achieve **53.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	7.5 kg (88.2%)	80 %	5
Grain	Strzegom Pszeniczny	1 kg (11.8%)	81 %	6

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	36 g	60 min	10 %
Boil	Citra	15 g	60 min	12 %
Boil	Citra	30 g	10 min	12 %
Aroma (end of boil)	Citra	30 g	10 min	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	23 g	Fermentis

### Notes

- 43,5l 12,2 blg temp 20\*  
Mar 13, 2018, 3:25 PM