

## czerwone

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **32**
- SRM **7.1**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **35.2 liter(s)**

### Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **63 C**, Time **70 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **70 min** at **63C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **24.2 liter(s)** of **76C** water or to achieve **35.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4 kg (72.7%)	82 %	4
Grain	RED ALE Viking Malt	1 kg (18.2%)	75 %	70
Grain	Rice, Flaked	0.2 kg (3.6%)	70 %	2
Grain	Oats, Flaked	0.2 kg (3.6%)	80 %	2
Grain	Płatki pszeniczne	0.1 kg (1.8%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	7.2 %
Whirlpool	Saaz (Czech Republic)	30 g	15 min	3.5 %
Dry Hop	Saaz (Czech Republic)	70 g	7 day(s)	3.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11.5 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	20 min