

## red

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **46**
- SRM **14.8**
- Style **Red IPA**

### Batch size

- Expected quantity of finished beer **35 liter(s)**
- Trub loss **5 %**
- Size with trub loss **40.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **48.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **32.3 liter(s)**
- Total mash volume **43 liter(s)**

### Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **32.3 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **26.7 liter(s)** of **76C** water or to achieve **48.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (37.2%)	80 %	5
Grain	Strzegom Monachijski typ I	5 kg (46.5%)	79 %	16
Grain	Pszeniczny	1.5 kg (14%)	85 %	4
Grain	Jęczmień palony	0.25 kg (2.3%)	55 %	1100

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	40 g	60 min	10 %
Boil	Centennial	40 g	30 min	10 %
Aroma (end of boil)	Centennial	40 g	10 min	10 %
Dry Hop	Centennial	80 g	0 day(s)	8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	200 ml	Fermentum Mobile