

## RED-I / worek

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **48**
- SRM **11.7**
- Style **Red IPA**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.9 liter(s)**

### Mash information

- Mash efficiency **87 %**
- Liquor-to-grist ratio **6.2 liter(s) / kg**
- Mash size **31 liter(s)**
- Total mash volume **36 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **31 liter(s)** of strike water to **54.6C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **60 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **-0.1 liter(s)** of **76C** water or to achieve **25.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Malt - Pale Ale	3 kg (60%)	80 %	5
Grain	Viking Malt - Red Ale melanoidynowy	1 kg (20%)	75 %	70
Grain	Viking Malt - Karmelowy Czerwony	1 kg (20%)	75 %	59

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zeus - granulac	10 g	45 min	14 %
Boil	lunga	14 g	45 min	9.4 %
Boil	Lublin (Lubelski)	60 g	20 min	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	---