

## 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 | ---        |