

## ira5

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- Gravity **13.3 BLG**
- ABV ---
- IBU **17**
- SRM **9.9**
- Style **Irish Red Ale**

### 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 **10 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **20.5 liter(s)**

### Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **80 C**, Time **5 min**

### Mash step by step

- Heat up **15.4 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **80C**
- Sparge using **20.1 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.8 kg (74.1%)	81 %	4
Grain	Briess - Pale Ale Malt	0.25 kg (4.9%)	80 %	7
Grain	Monachijski	0.4 kg (7.8%)	80 %	16
Grain	Bestmalz Red X	0.25 kg (4.9%)	79 %	59
Grain	Karmelowy Czerwony	0.4 kg (7.8%)	75 %	59
Grain	Jęczmień palony 1000	0.03 kg (0.6%)	65 %	1970

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka (goryczkowy)	10 g	70 min	10 %
Boil	Saaz (Czech) aromat	15 g	30 min	4.5 %
Boil	Saaz (Czech) aromat	15 g	10 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-04	Ale	Dry	11.5 g	Safale
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