

# IRA

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **20**
- SRM **12.1**
- Style **Irish Red Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

## Steps

- Temp **65 C**, Time **20 min**
- Temp **72 C**, Time **50 min**

## Mash step by step

- Heat up **14.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **20 min** at **65C**
- Keep mash **50 min** at **72C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (52.6%)	80 %	5
Grain	Karmelowy Czerwony	1 kg (17.5%)	75 %	59
Grain	Słód Colorado Honig Viking Malt	0.3 kg (5.3%)	80 %	13
Grain	Słód owsiany Fawcett	0.2 kg (3.5%)	61 %	5
Grain	Słód Special X Bestmalz	0.2 kg (3.5%)	--- %	350
Adjunct	Płatki żytnie	1 kg (17.5%)	--- %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	20 g	60 min	5.8 %
Boil	Challenger	15 g	30 min	5.8 %
Boil	Challenger	10 g	15 min	5.8 %

## Yeasts

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