

# 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     |