

# IRA

- Gravity **13.3 BLG**
- ABV ---
- IBU **31**
- SRM **17.9**
- Style **Irish Red Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **20.6 liter(s)**

## Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **15.4 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

| Type  | Name                      | Amount         | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 4.5 kg (87.4%) | 85 %  | 7   |
| Grain | Strzegom Karmel 150       | 0.6 kg (11.7%) | 75 %  | 150 |
| Grain | Jęczmień palony           | 0.05 kg (1%)   | 55 %  | 985 |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Fuggles | 10 g   | 60 min | 4.5 %      |
| Boil    | Target  | 10 g   | 60 min | 10.5 %     |
| Boil    | Fuggles | 10 g   | 30 min | 4.5 %      |
| Boil    | Target  | 10 g   | 30 min | 10.5 %     |
| Boil    | Fuggles | 10 g   | 5 min  | 4.5 %      |
| Boil    | Target  | 10 g   | 5 min  | 10.5 %     |

## Yeasts

| Name                      | Type | Form   | Amount | Laboratory       |
|---------------------------|------|--------|--------|------------------|
| FM13 Irlandzkie Ciemności | Ale  | Liquid | 125 ml | Fermentum Mobile |

## Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Fining | mech irlandzki | 15 g   | Boil    | 10 min |