

IRA

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **17**
- SRM **8.2**
- Style **Irish Red Ale**

Batch size

- Expected quantity of finished beer **36 liter(s)**
- Trub loss **5 %**
- Size with trub loss **37.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **45.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **31.1 liter(s)**
- Total mash volume **40 liter(s)**

Steps

- Temp **52 C**, Time **20 min**
- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **31.1 liter(s)** of strike water to **56.6C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **40 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **23.3 liter(s)** of **76C** water or to achieve **45.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|---------------|-------|-----|
| Grain | Pilzneński | 6 kg (67.4%) | 81 % | 4 |
| Grain | Strzegom Monachijski typ I | 0.5 kg (5.6%) | 79 % | 16 |
| Grain | Strzegom Pale Ale | 0.5 kg (5.6%) | 79 % | 6 |
| Grain | Caraamber | 0.5 kg (5.6%) | 75 % | 59 |
| Grain | Weyermann - Carared | 1 kg (11.2%) | 75 % | 45 |
| Grain | Słód Caramunich Typ II Weyermann | 0.2 kg (2.2%) | 73 % | 120 |
| Grain | Viking melanoidynowy | 0.2 kg (2.2%) | 75 % | 60 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Marynka | 20 g | 30 min | 10 % |
| Boil | Challenger | 20 g | 20 min | 7 % |
| Boil | Challenger | 10 g | 10 min | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------------------|------|-------|---------|------------------|
| FM13 Irlandzkie Ciemności | Ale | Slant | 1000 ml | Fermentum Mobile |

Extras

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