

Red Ale / Bitter

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **18**
- SRM **12.2**
- Style **Irish Red Ale**

Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **5 %**
- Size with trub loss **52.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **63.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **42.7 liter(s)**
- Total mash volume **54.9 liter(s)**

Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **42.7 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **32.8 liter(s)** of **76C** water or to achieve **63.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|------|
| Grain | Viking Pale Ale malt | 10 kg (82%) | 80 % | 5 |
| Grain | Biscuit Malt | 0.5 kg (4.1%) | 79 % | 45 |
| Grain | Weyermann - Melanoiden Malt | 0.5 kg (4.1%) | 40 % | 53 |
| Grain | Strzegom Monachijski typ I | 1 kg (8.2%) | 60 % | 16 |
| Grain | Strzegom Barwiący | 0.2 kg (1.6%) | 68 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Ekuanot | 20 g | 60 min | 14 % |
| Boil | Lublin (Lubelski) | 30 g | 30 min | 4 % |
| Boil | Lublin (Lubelski) | 30 g | 5 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|-------|--------|------------|
| US 05 | Ale | Slant | 500 ml | Tak |