

IRA z Homebrewing

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **24**
- SRM **9.3**
- 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 **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **20.5 liter(s)**

Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **75 C**, Time **5 min**

Mash step by step

- Heat up **16 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **75C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------|----------------|-------|-----|
| Grain | Pilzneński | 4 kg (87.7%) | 81 % | 4 |
| Grain | Carared | 0.25 kg (5.5%) | 75 % | 39 |
| Grain | Caraamber | 0.25 kg (5.5%) | 75 % | 59 |
| Grain | Jęczmień palony | 0.06 kg (1.3%) | 55 % | 985 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil | Marynka | 20 g | 60 min | 8.8 % |
| Aroma (end of boil) | Lubelski | 20 g | 10 min | 4.4 % |

Yeasts

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